STR-D1090/D2090

SERVICE MANUAL

US Model
Canadian Model
E Model
STR-D1090

US Model
Canadian Model
STR-D2090

Photo : STR-D2090

SPECIFICATIONS

Audio Power Specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20 - 20,000 Hz, rated 120 watts per channel minimum RMS power, with no more than 0.04 % total harmonic distortion from 250 milliwatts to rated output.

	Surround mode	Stereo mode
FRONT	75 W + 75 W	120 W + 120 W
CENTER*	75 W	—
REAR	30 W + 30 W	—

* (only in the DOLBY, THEATER and LIVE modes)

Other Specifications

Dynamic power output (in the stereo mode)	8 ohms, at 1 kHz,IHF	185 + 185 watts
	4 ohms, at 1 kHz IHF	235 + 235 watts
Frequency response	PHONO	RIAA equalization curve ±0.5 dB
	CD, DAT, TAPE 1,2 VIDEO 1,2,3	10 Hz — 20 kHz $^{+0}_{-1}$ dB
Damping factor (8 ohms, at 1kHz)		50
Input sensitivity/ impedance	PHONO MM	4 mV, 50 kilohms
	DAT,CD, VIDEO 1,2,3 TAPE 1,2	250 mV 50 kilohms
S/N	PHONO MM	87 dB 79 dB** (A,2.5mV)
	DAT, CD VIDEO 1,2,3 TAPE 1,3	105 dB 85 dB** (A,150mV)
Output sensitivity/ impedance	DAT OUT, TAPE OUT 1,2 VIDEO 1	250 mV 10 kilohms
	SPEAKERS	Accepts speakers of 8-16 ohms
	HEADPHONES	Accepts headphones of high and low impedance
	SURROUND OUT REAR	2.5 V, 1kilohm
	SURROUND OUT CENTER	2.5 V, 1kilohm
	SURROUND OUT MONO	1 V, 1kilohm
MUTING		–20dB
DBFB		+10 dBat 70Hz

** '78IHF

— Continued next page —

使用時は添付資料も参照のこと
Refer to the additional documents.

FM STEREO/FM-AM RECEIVER

SONY®

Digital signal processor section

Modulation (A/D conversion)		High Density Linear Converter
Demonstration (D/A conversion)		High Density Linear Converter (Pulse D/A Converter)
Sampling frequency		48 kHz
Equalizer	Band	3-band, Bass/treble Mid
	Turnover frequency	Bass: 125 Hz — 1 kHz Treble: 1 kHz — 8 kHz
	Center frequency	Mid: 54 — 8 kHz
	Level	±10 dB, 1 dB step
	Slope (Q)	3-step selectable, Wide, Mid, Narrow
Surround	ROOM SIZE	16-step adjustable
	WALL	16-step adjustable
	SEAT POSITION F/R	16-step adjustable
	SEAT POSITION L/R	16-step adjustable
	EFFECT LEVEL	20-step adjustable
	REVERB TIME	16-step adjustable
	DELAY TIME**	15.0 ms-30.0 ms, 0.1 ms step
	REAR LEVEL	+10 — –50 dB, 1 dB step
	CENTER LEVEL***	+10 — –50 dB, 1 dB step
	INPUT BALANCE	Automatic

** (only in the DOLBY mode)
*** (only in the DOLBY, THEATER and LIVE modes)

FM tuner section

Frequency range		87.5 — 108.0 MHz
Antenna terminals		75 ohms, unbalanced
Sensitivity at 50 dB		18.3 dBf, 4.5 µV (mono) 38.3 dBf, 45 µV (stereo)
Usable sensitivity		11.2 dBf, 2 µV (IHF)
S/N	Mono	80 dB
	Stereo	74 dB
Harmonic distortion at 1 kHz	Mono	0.3 %
	Stereo	0.5 %
IM distortion	Mono	0.3 %
	Stereo	0.5 %
Separation		45 dB at 1 kHz
Frequency response		30 Hz — 15 kHz $^{+0}_{-2}$ dB
Selectivity		60 dB at 400 kHz
Capture ratio		1.2 dB
AM suppression ratio		54 dB
Image response ratio		70 dB
IF response ratio		70 dB
Spurious response ratio		80 dB
RF intermodulation at 800 kHz		60 dB
Auto tuning threshold	Low	30 dBf
	High	50 dBf

AM tuner section

Frequency range	530 — 1710 kHz (with 10 kHz interval) 531 — 1710 kHz (with 9 kHz interval)
Antenna	Loop antenna
Usable sensitivity	50 dB/m (at 1,000 kHz or 999 kHz)
S/N	54 dB (at 50 mV/m)
Harmonic distortion	0.5% (50 mV/m, 400 Hz)
Selectivity	35 dB (9 kHz), 40 dB (10 kHz)
Auto tuning threshold	55 dB/m

Video section

Inputs	VIDEO 1,2,3: 1 Vp-p 75 ohms
Outputs	VIDEO 1, MONITOR: 1 Vp-p 75 ohms

General

		STR-D2090	STR-D1090
System	Tuner section	PLL quartz-locked digital synthesizer system	
	Preamplifier section	Low-noise NF type equalizer	
	Power amplifier section	Pure-complimentary SEPP	
Power requirements		120 V AC,60 Hz	
Power consumption		USA model: 260 watts Canada model: 320 VA	
AC outlets		Two switched, total 120 watts	
Dimensions (including projecting parts and controls)		Approx. 430 x 148 x 385 mm ($17 \times 5\ ^{13}/_{16} \times 15\ ^{3}/_{16}$ inches)	
Weight		Approx. 13.6 kg (30 lb)	Approx. 13.2 kg (29 lb 1 oz)

Supplied accessories
FM wire antenna (1)
AM loop antenna (1)
Remote commander
RM-P321(STR-D2090) (1)
RM-U221(STR-D1090) (1)
Sony Batteries SUM-3(NS) (2)

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

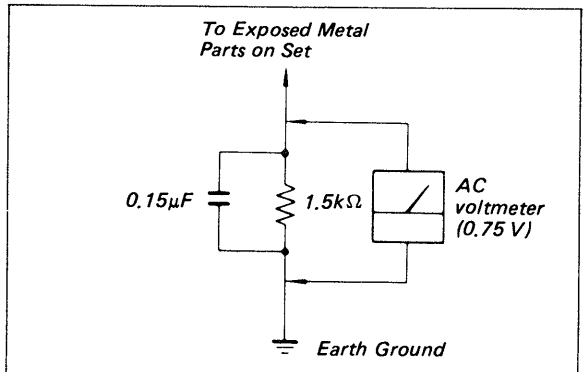

Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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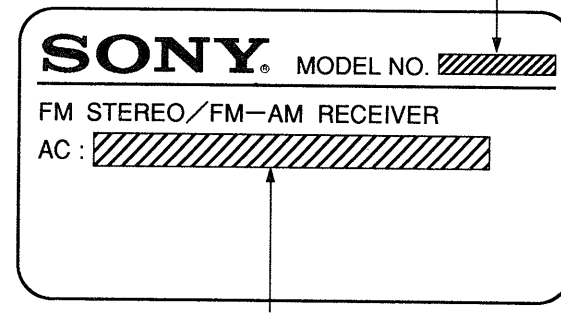
MODEL IDENTIFICATION

— Model Number Portion —

STR—D1090
STR—D2090



US model : 120V~60Hz 260W
Canadian model : 120V~60Hz 320VA
E model : 120/220/240V~50/60Hz 260W

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Introduction

Overview

The STR-D2090/D1090 is an FM Stereo/FM-AM receiver and audio/video control center.
You can enjoy various audio/video program sources with this unit.

TV/video programs
- You can enjoy TV or CATV programs with FM simulcast.
- Sounds from various audio program sources can be added on video tapes during editing.

Tuner
- Precise tuning is ensured by a quartz lock digital synthesizer.
- Station Index system allows you to tune into a station quickly.

Powerful surround sound
- By connecting the power amplifier to the SURROUND OUT jacks of this unit, you can obtain powerful surround sound.

Digital surround processor
- The STR-D2090/D1090 electronically reproduces the reflected sound (early reflection) and reverberation sound (reverberation) by using its digital signal processor, and allows you to obtain the acoustics of various situations.
- **DOLBY PRO LOGIC**: The STR-D2090 and STR-D1090 incorporate the Dolby Pro Logic Surround Decoder which has the same functions for playback as movie theaters and gives a theater-like experience in your listening room, naturally reproducing the audio sound field.

Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792, and 3,959,590. Canadian numbers 1,004,603 and 1,037,877. "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

Digital parametric equalizer
- You can enjoy audio program sources with appropriate equalization curve by controlling the level of the desired 3 frequency bands.

Sound field
- 10 recommended sound field programs (combination of surround and parametric equalizer settings) are preset in the factory for easy use. You can also store up to 10 settings you created in the memory.
- Combined use of the sound field programs and the preset stations allow you to enjoy broadcast listening immediately with the memorized sound field settings.

ON SCREEN function (STR-D2090 only)
- This function allows you to monitor the operation being performed on the monitor TV.

TITLE function (STR-D2090 only)
- With this function, you can edit a title and superimpose on your picture.

Remote commander supplied
- The STR-D1090 is supplied with the RM-U221. The STR-D2090 is supplied with the RM-P321 which can "learn" the various functions of other remote commanders of the infrared type.

On the FUNCTION/SOUND FIELD/PRESET TUNING buttons
There are two kinds of modes for the FUNCTION/SOUND FIELD/PRESET TUNING buttons. One is the "Auto mode" and the other is the "Manual mode".
- **Auto mode**
  The FUNCTION/SOUND FIELD/PRESET TUNING buttons are factory preset to the auto mode:
  After one of the FUNCTION buttons is pressed, these buttons change to the SOUND FIELD mode automatically. When the TUNER button is pressed, these buttons function as numeric buttons.
- **Manual mode**
  When you press the POWER switch while pressing the MODE SELECT button, the FUNCTION/SOUND FIELD/PRESET TUNING buttons are set to the manual mode. With the MODE SELECT button, you can select the desired mode.
  To return to the auto mode, perform the same procedure again.

This manual describes the operations in the manual mode. However, "Quick Reference" is described in the Auto mode.

Precautions

On safety
- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.

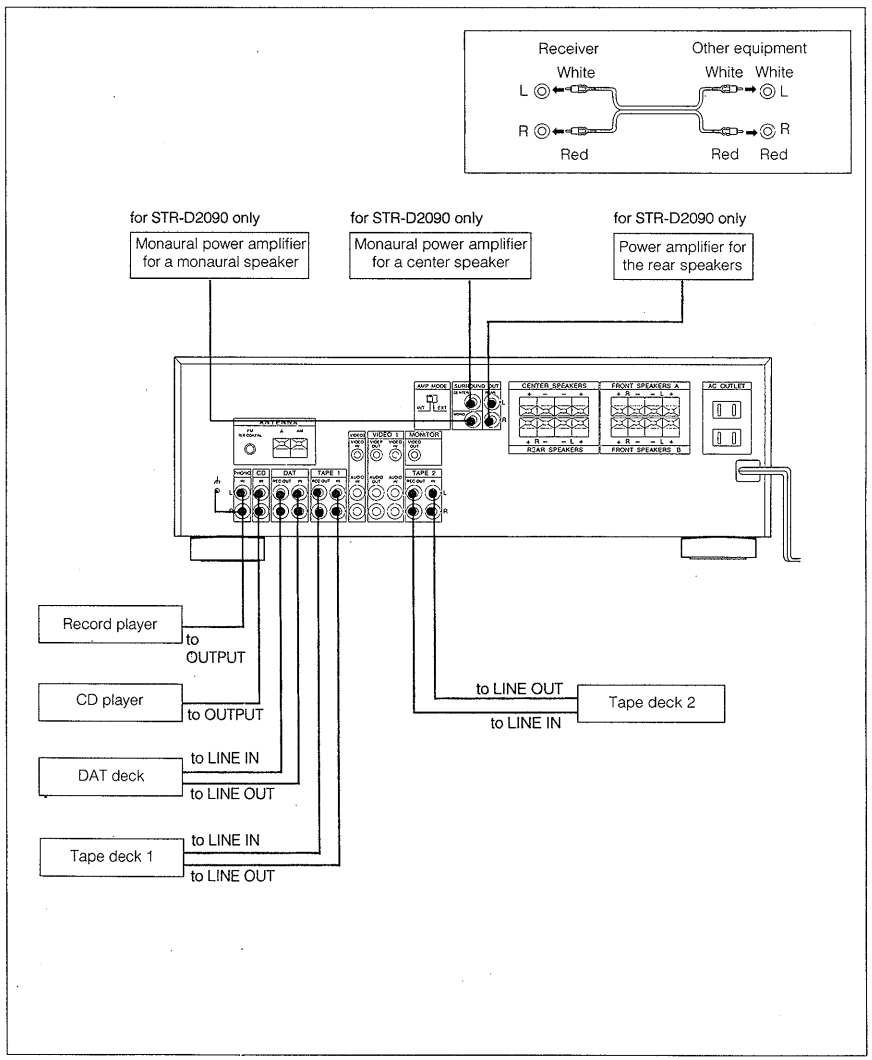
On operation
Before making program source connections, be sure to turn the power switch off and unplug the unit.

On cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine.

For the customers in the U.S.A.
For detailed safety precautions, see the "IMPORTANT SAFEGUARDS" leaflet.

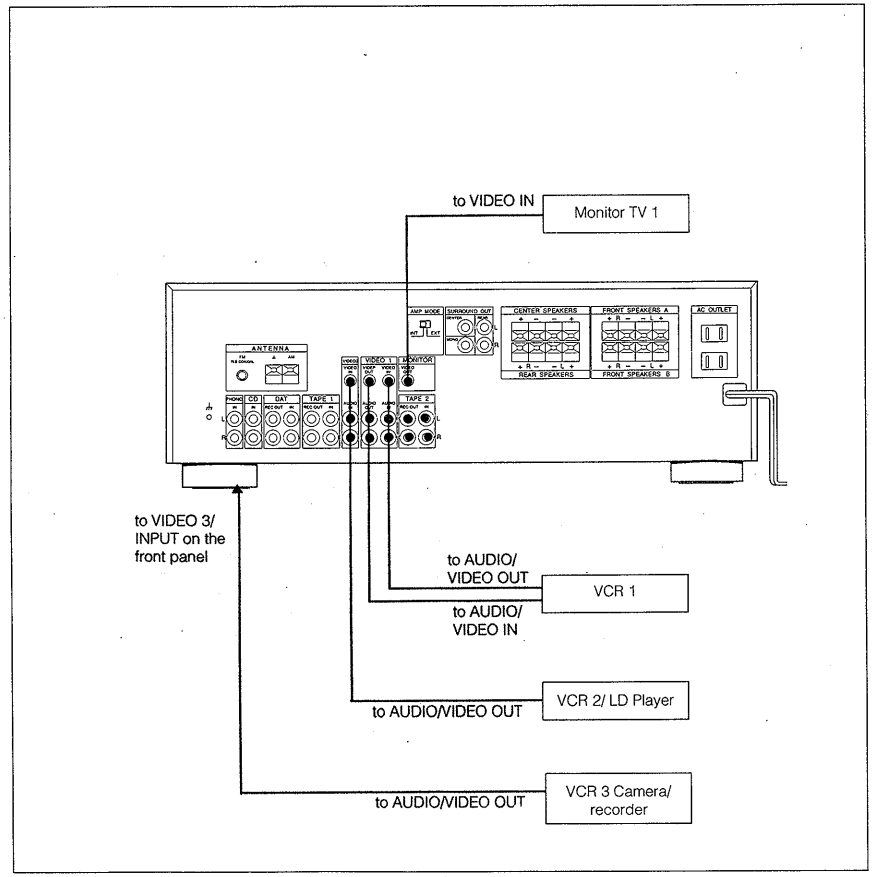
If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

Connecting Audio Equipment



Hooking Up the System

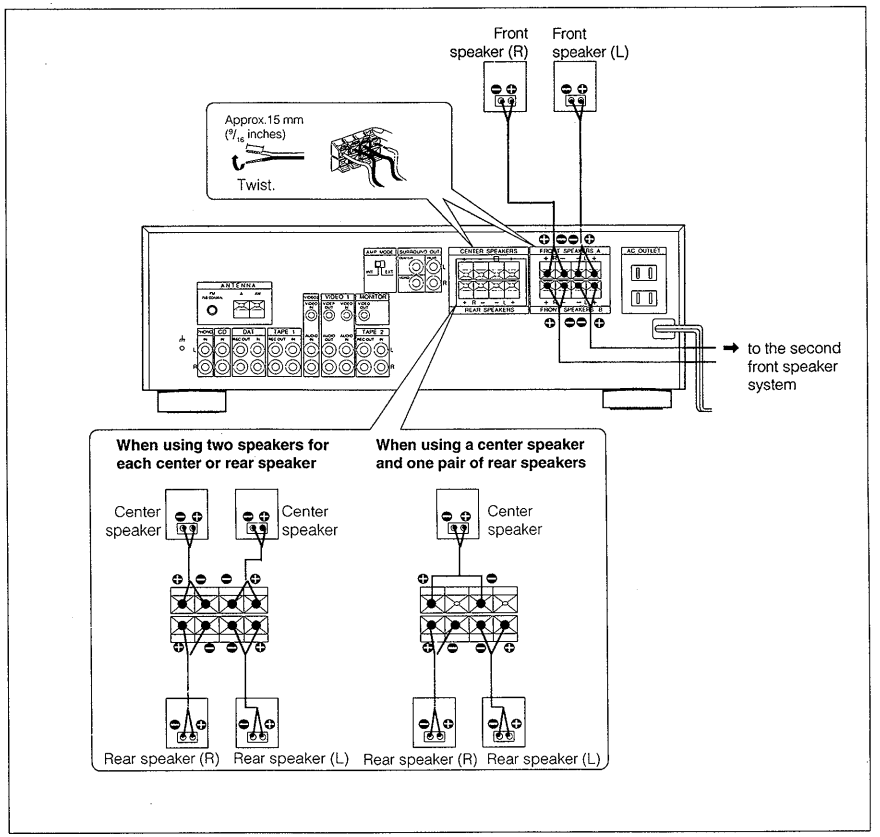
Connecting Video Equipment



Caution for STR-D2090
When the MONITOR VIDEO OUT jack is connected and ON SCREEN ON/OFF is set to ON, the cursor mode operation buttons cannot be used for the other functions than the ON SCREEN function.

Connecting Speaker Systems

Front, rear and center speakers can be connected to this unit.



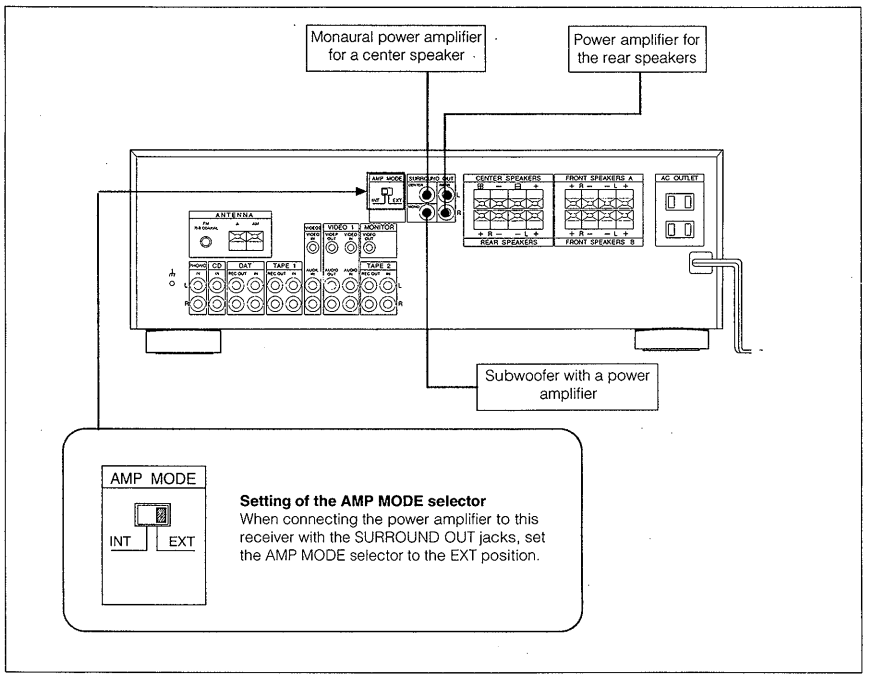
Speaker impedance and power capability
This receiver is designed to work best with speakers having nominal impedance from 8 to 16 ohms. Be sure to use a speaker system with adequate nominal impedance and power handling capabilities.
When using two center speakers, use the speakers having nominal impedance from 4 to 16 ohms.

Note
- When connecting the speaker cord to the speaker terminal, make sure that the polarity (+ and –) of the speaker cord is correct. If the polarity is reversed at either speaker, the sound will be distorted and will lack bass.

Hooking Up the System

Connecting the external power amplifier (for STR-D2090 only)

By connecting the external power amplifier to this receiver, you can obtain a powerful sound.


Monaural power amplifier for a center speaker
Power amplifier for the rear speakers
Subwoofer with a power amplifier
AMP MODE
INT
EXT
Setting of the AMP MODE selector
When connecting the power amplifier to this receiver with the SURROUND OUT jacks, set the AMP MODE selector to the EXT position.

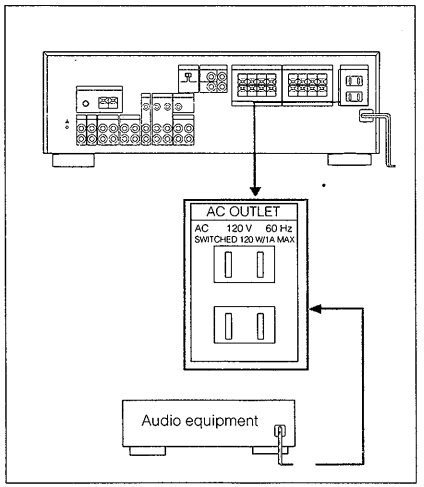
When connecting a monaural power amplifier for a center speaker
Connect the input jack of the power amplifier to the SURROUND CENTER jack of this receiver.

When connecting a subwoofer with a power amplifier
Connect the line input jack of the subwoofer to the SURROUND MONO jack of this receiver.
When using subwoofer not having a power amplifier, connect through a monaural power amplifier.

When connecting a power amplifier for the rear speakers
Connect the input jacks of the power amplifier to the SURROUND OUT REAR jacks of this receiver.

Connecting to the Power Outlet

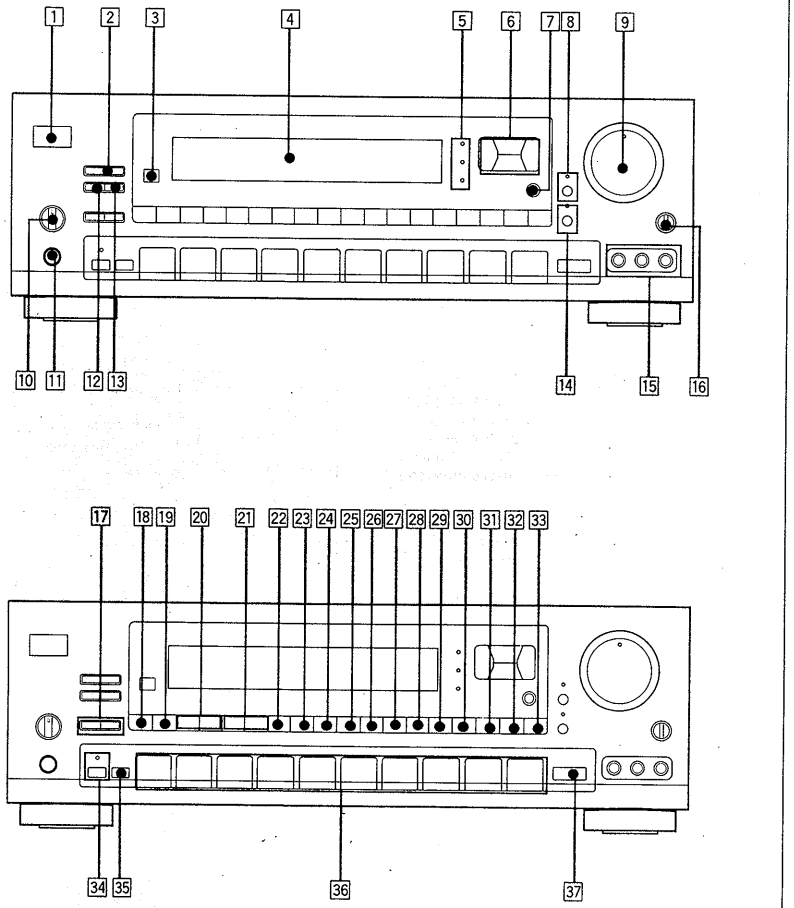
By connecting the power cord of the other audio equipment to SWITCHED AC OUTLET, this unit can supply the power source to the other audio equipment.



Caution
Be careful that the total power consumption of each equipment connected to the outlets on the receiver does not exceed 120 watts.
Do not connect electrical home appliances such as an electric iron, fan, TV, or other high-wattage equipment to these outlets.

Parts Identification

Front Panel



1 **POWER switch**

2 **ON SCREEN ON/OFF button** (STR-D2090 only)

3 **Remote sensor**

4 **Display window**

5 **CURSOR MODE indicators**
(See pages 18, 23, 32, 33, 35, 38.)

6 **Cursor mode operation buttons**
(See pages 8, 18, 23, 32, 33, 35, 38, 40)

7 **CURSOR MODE/TITLE MENU button**
(TITLE MENU button: STR-D2090 only)
(See pages 18, 23, 32, 33, 35, 38, 40.)

8 **DBFB button and indicator** (See page 16.)

9 **MASTER VOLUME control** (See page 16.)

10 **SPEAKERS selector** (See page 16.)

11 **HEADPHONES jack**

12 **TITLE ON/OFF button** (STR-D2090 only)
(See pages 40, 41.)

13 **TITLE IN/OUT button** (STR-D2090 only)
(See page 41.)

14 **MUTING button and indicator** (See page 16.)

15 **VIDEO 3/INPUT jacks**

16 **BALANCE control** (See page 16.)

17 **EDIT VIDEO/AUDIO buttons** (See pages 27, 28.)

18 **DISPLAY GRAPHIC button** (See page 38.)

19 **DISPLAY INDEX button** (See pages 20, 24.)

20 **INDEX/SELECT TUNING –/+ buttons**
(See pages 20, 24.)

21 **PRESET TUNING –/+ buttons** (See pages 22, 24.)

22 **TUNING LEVEL button** (See page 20.)

23 **MEMORY button** (See pages 18, 21, 23.)

24 **DIRECT TUNING button** (See page 19.)

25 **FM MODE button** (See page 19.)

26 **FM/AM button** (See pages 19, 20.)

27 **SOUND FIELD LINK button** (See page 39.)

28 **SOUND FIELD ON/OFF button** (See pages 32, 33.)

29 **SOUND FIELD USER/PRESET button**
(See pages 35, 38, 39.)

30 **Dolby PRO LOGIC MODE button**
(See pages 31, 32.)

31 **EQUALIZER FLAT button** (See page 38.)

32 **EQUALIZER SLOPE button** (See page 38.)

33 **EQUALIZER BAND button** (See page 38.)

34 **TAPE 2 MONITOR button and indicator**
(See page 26.)

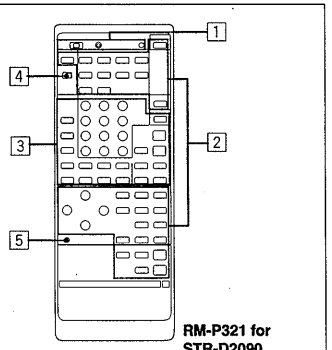
35 **SHIFT button** (See pages 21, 22, 23.)

36 **FUNCTION/SOUND FIELD/PRESET TUNING buttons**
(See page 4.)

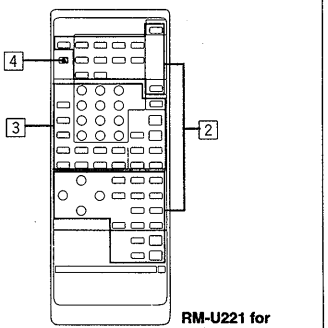
37 **MODE SELECT button**

Parts Identification

Remote Commander



RM-P321 for STR-D2090



RM-U221 for STR-D1090

1 Program control section

Mode selector and indicator
SONY STD: To control Sony equipment.
USER STD: To control equipment whose remote control functions are stored.
LEARN: To store functions of other remote commanders emitting infrared rays.
PROGRAM CLEAR: Clears the stored functions.

2 Receiver control section

FUNCTION:
DAT, CD, TUNER, PHONO, VIDEO 1, VIDEO 2, VIDEO 3, TAPE, DIGITAL 1, 2: The each function is selected and the each unit enters its operating mode automatically. (DIGITAL 1 and 2 do not function.)
SYSTEM OFF: Turns off the power of the whole system.
POWER: Turns on the power of the receiver.
SOUND FIELD buttons
U/P (user/preset): Selects the USER or PRESET mode.
MODE: Selects the sound field mode.
ON/OFF: Turns on/off the sound field system.
BAND: Selects the frequency band of the equalizer.
EQ: Turns on/off the setting of TONE controls.
T. (test) TONE: Generates a pink noise signal that is sent in succession to each speaker.
CURSOR MODE: Select CURSOR MODE.
CURSOR operating buttons
REAR LEVEL +/– buttons: Control the volume of rear speakers (surround level).
CENTER LEVEL +/– buttons : Control the volume of center speaker (surround level).
DBFB button: Turns on/off the DBFB (Dynamic Bass Feedback).
MUTING button: Mutes the sound.
MASTER VOL +/– buttons: Control the receiver volume.
SLEEP: Set to the SLEEP timer mode. In this mode, the unit is automatically turned off after the designated time.

3 Other equipment control section

Numeric buttons (1 to 0): Designate the number.
>10: Designate the number more than 10.
ENTER: Press after designating the TV/VCR channel.
SHIFT: Select the memory page (A, B or C).
TV/VIDEO selector: Selects the program to see : TV or VIDEO.
ANT TV/VTR button: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.
CH/PRESET +/– buttons: Select a preset channel.
INDEX: Set to the index tuning mode.
◄◄/►►: Fast winding/manual search
●: Recording
◄/►: Play
■: Stop
II: Pause
I◄◄/►►I: Locates a desired selection.
REV/FWD: Press ● and REV or FWD at the same time.
D (disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)
SELECT: Changes the settings of the FUNCTION buttons.

4 SYSTEM/TV mode switch

In TV mode (When setting the SYSTEM/TV selector to TV)

Only MUTING, MASTER VOL +/– and the operative buttons in TV section on the list described on the next page can be used.

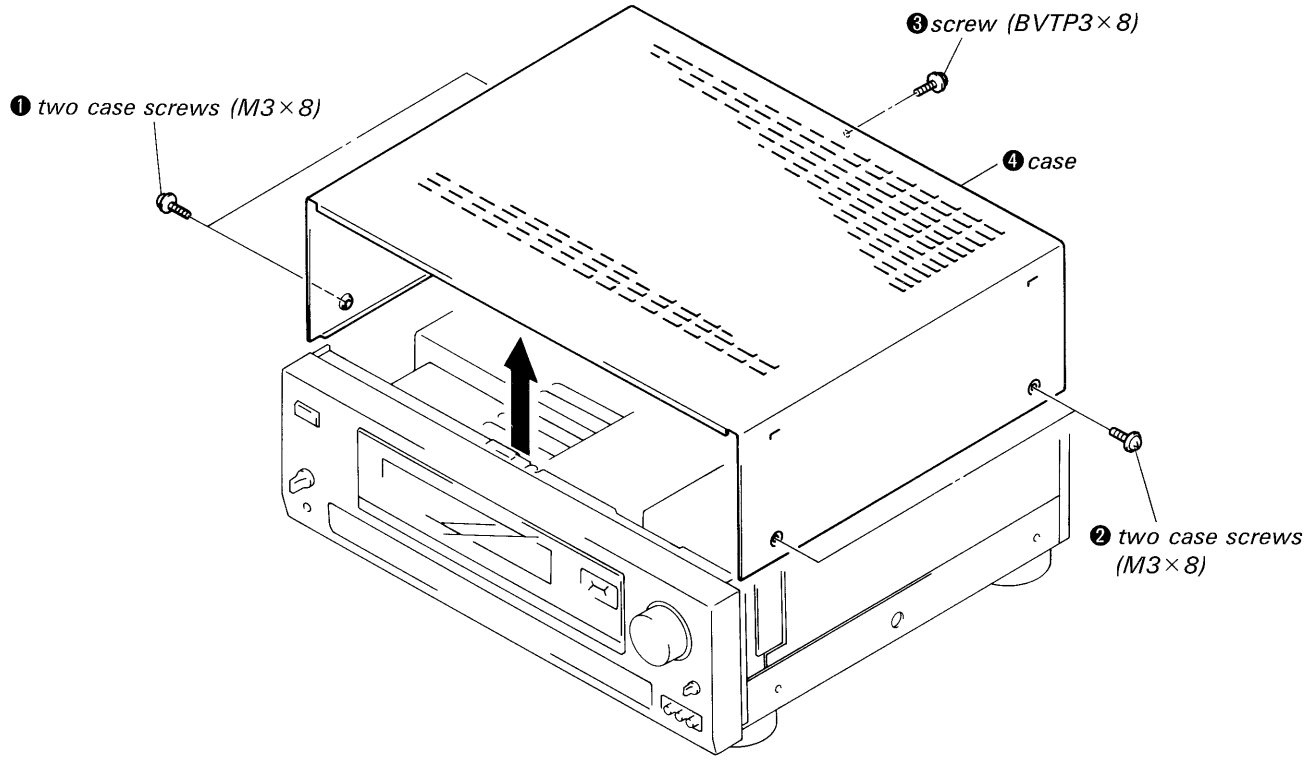
5 RESET button

Resets the remote commander to the initial state.

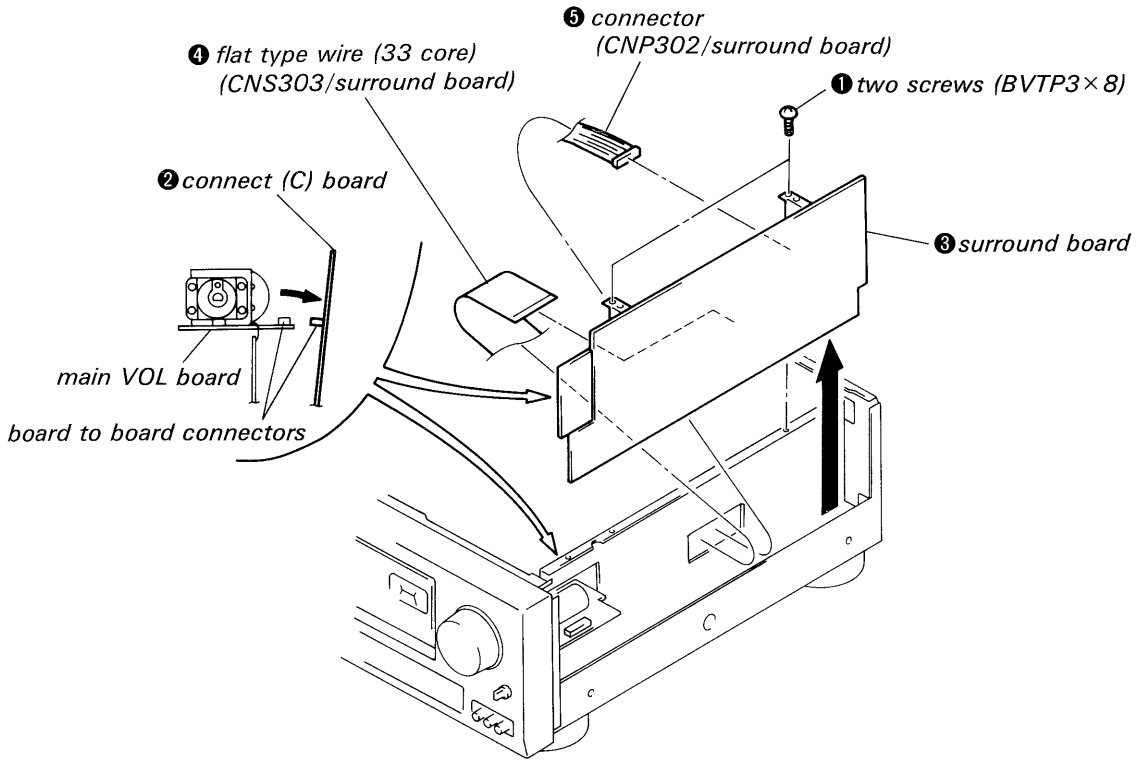
SECTION 2
DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

2-1. CASE REMOVAL



2-2. SURROUND BOARD REMOVAL

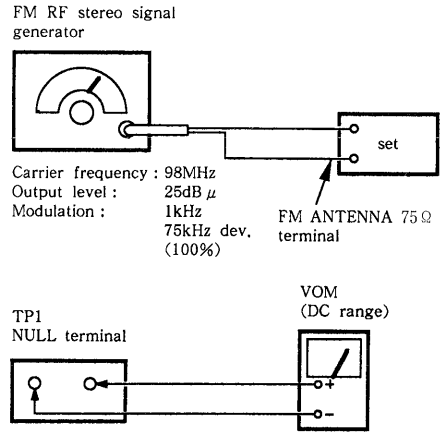

❺ connector (CNP302/surround board)
❹ flat type wire (33 core) (CNS303/surround board)
❶ two screws (BVTP3×8)
❷ connect (C) board
❸ surround board
main VOL board
board to board connectors

SECTION 3
ELECTRICAL ADJUSTMENTS

FM SECTION

• FM Discriminator (NULL) Adjustment

Setting :



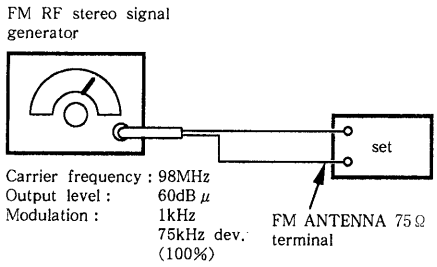
Procedure :

1. Tune the set to 98MHz.
2. Adjust T21 for 0V reading on the VOM.

Note : FM Tuning level adjustment should be made after FM discriminator adjustment.

• FM Tuning Level Adjustment

Setting :

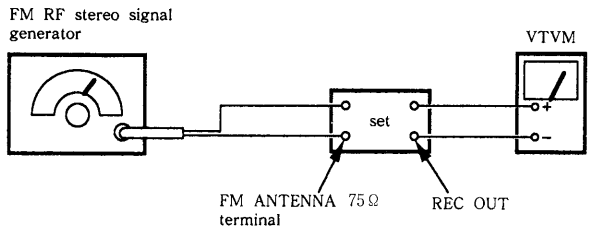


Procedure :

1. Tune the set to 98MHz.
2. Adjust RV24 so that the Voltage of IC10 ㉒ pin is set to low.

• FM Stereo Separation Adjustment

Setting :



Carrier frequency : 98MHz
Output level : 60dB μ
Modulation :
Audio (1kHz) : 33.75kHz dev. (45%)
Pilot (19kHz) : 7.5kHz dev. (10%)
Sub-channel (38kHz) : 33.75kHz dev. (45%)

Procedure :

Tune the set to 98MHz.

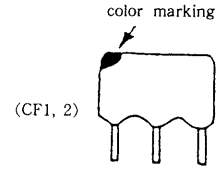
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV21 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV21 for minimum reading.

L-CH Stereo separation : Ⓐ − Ⓑ
R-CH Stereo separation : Ⓒ − Ⓓ

The separations of both channels should be equal.

Note on Ceramic Filter (CF1, 2) Replacement. (DISPLAY BOARD)

This set employs two ceramic filters (CF1, 2) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by (*A, *B) connection is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.

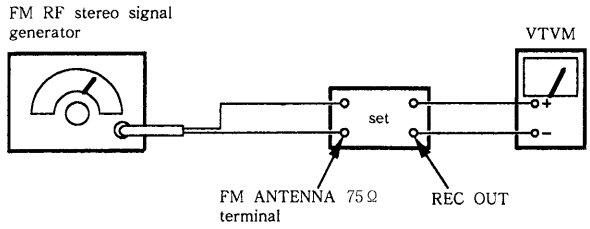


○ : short
× : open

Ceramic filter		Connection		FM intermediate frequency (MHz)
Color mark	Center frequency (MHz)	*A (D217)	*B (D218)	
White	10.750	×	○	10.750
Red	10.700	×	×	10.700
Black	10.650	○	×	10.650

• **Auto Stop Level Adjustment**

Setting :



Carrier frequency : 98MHz
Output level : 40dBμ or 45dBμ

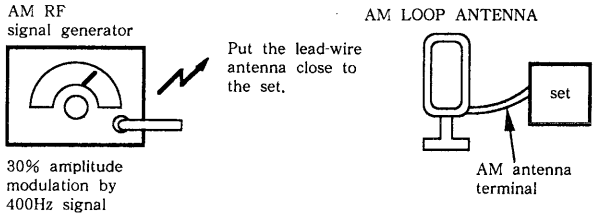
Procedure :

1. Push the TUNING LEVEL switch to High.
2. Adjust RV25 so that the voltage of IC10 ㉑ pin is set to low.

AM SECTION

• **AM Tuning Level**

Setting :



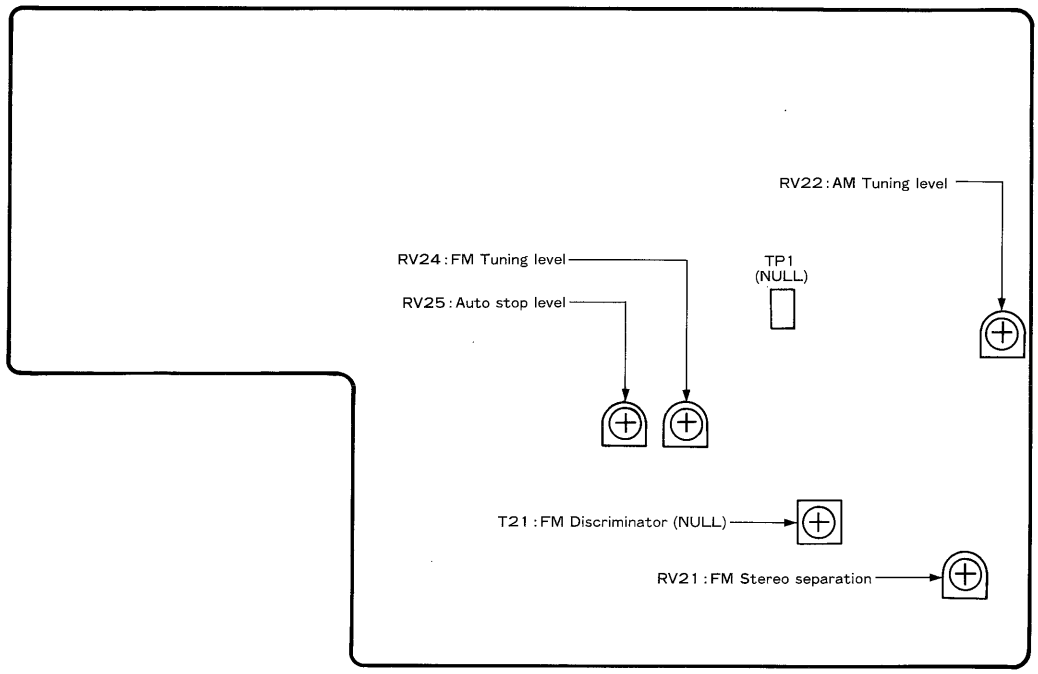
30% amplitude modulation by 400Hz signal

Procedure :

1. Tune the set to 1,050kHz.
2. Adjust the RV22 so that the voltage of IC10 ㉑ pin is set to low.

Adjustment Location:

[TUNER VIDEO BOARD] – Component side –


RV22 : AM Tuning level
RV24 : FM Tuning level
RV25 : Auto stop level
TP1 (NULL)
T21 : FM Discriminator (NULL)
RV21 : FM Stereo separation

ONSCREEN SECTION

Color Burst Signal Adjustment

Setting:

Signal:	None
Frequency counter:	TP101

Procedure:

Adjust to 3.579545MHz with CT101

H.sync Signal Adjustment

Setting:

Signal:	None
Frequency counter:	TP106

Procedure:

Adjust to 15.734kHz with RV105

Color Reproducibility Adjustment

Procedure:

1. Push [RTA] and [7] buttons at once while pushing [TAPE 2] button
2. Adjust the picture frame as shown in Fig. A when using a color bar chart for adjusyment with RV104

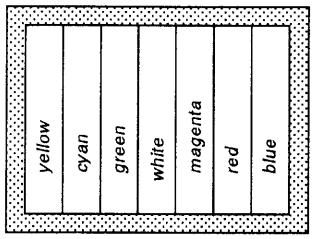


Fig. A. (picture of monitor screen)

Clock-High Adjustment

Setting:

Signal:	None
Frequency counter:	TP103

Procedure:

1. Short TP104 and GND
2. Adjust to 23.5MHz with RV105

Clock-Low Adjustment

Setting:

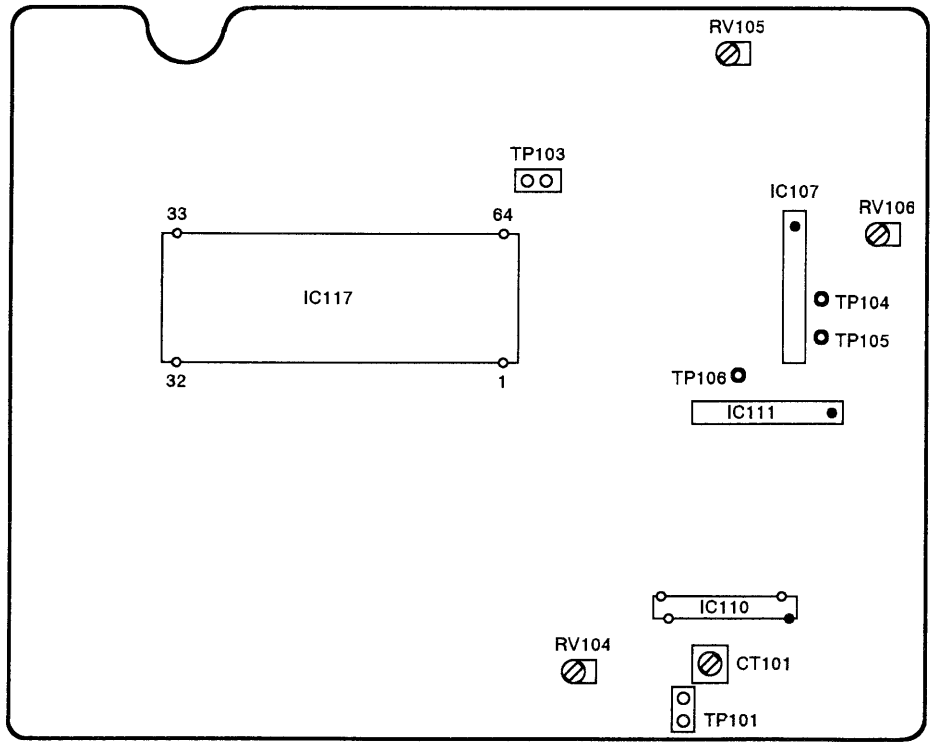
Signal:	None
Frequency counter:	TP103

Procedure:

1. Short TP105 and GND
2. Adjust to 18.9MHz with RV106

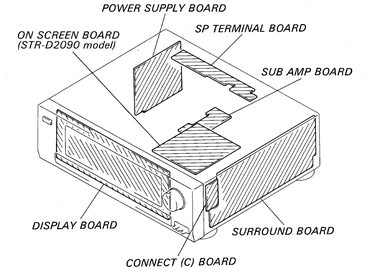
Adjustment Location:

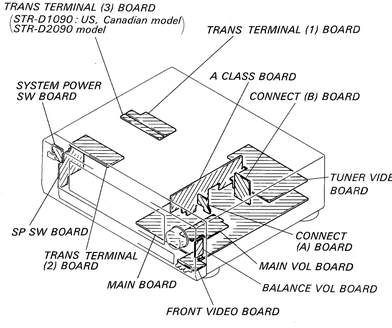
[ONSCREEN BOARD] — Component side —



SECTION 4
DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION

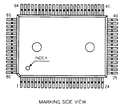




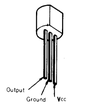
4-2. SEMICONDUCTOR LEAD LAYOUTS

BA7230LS

LC83015

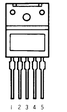


NJM78L05A

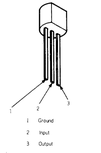


BA7611AN

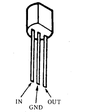
LM3875-S



NJM78L08A
NJM79L05A



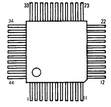
BA7625



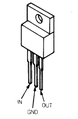
LVA519S
TC5081AP

RBA-402

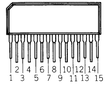
CXD2552Q-2



M5F78M05L
M5F78M15L

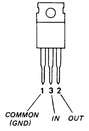


STK-3122-3A

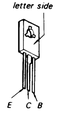


GP1U52XB

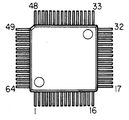
M5F79M15L



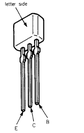
2SA1142-QPE
2SC2682-QPE



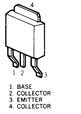
HD6435208F



2SA1175-HFE
2SC2785-HFE
2SC3623A-LK
DTA124ES
DTC144ES



2SA1341



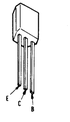
2SA1684-LK

2SA979-FG

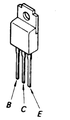
2SA988-PAFAEA

2SC1841-PAFAEA

2SC2603-EF
2SC2669-OY
2SC3113-AB
DTA114ES
DTC114ES
DTC124ES

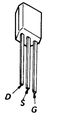


2SC4431-LK



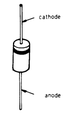
2SD2012

2SK241-GR



2SK246-GR2

10E2
1N4148M

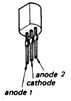


1SS352

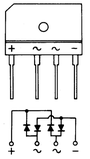
EC10DS2

HZL-36H
HZP-6.8B
HZS-2ALL
HZS-4ALL
HZS-6A3L
HZS-6C3L

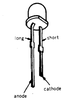
KV1310



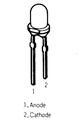
RBV-602-01



SEL2810A



SEL2910W-D

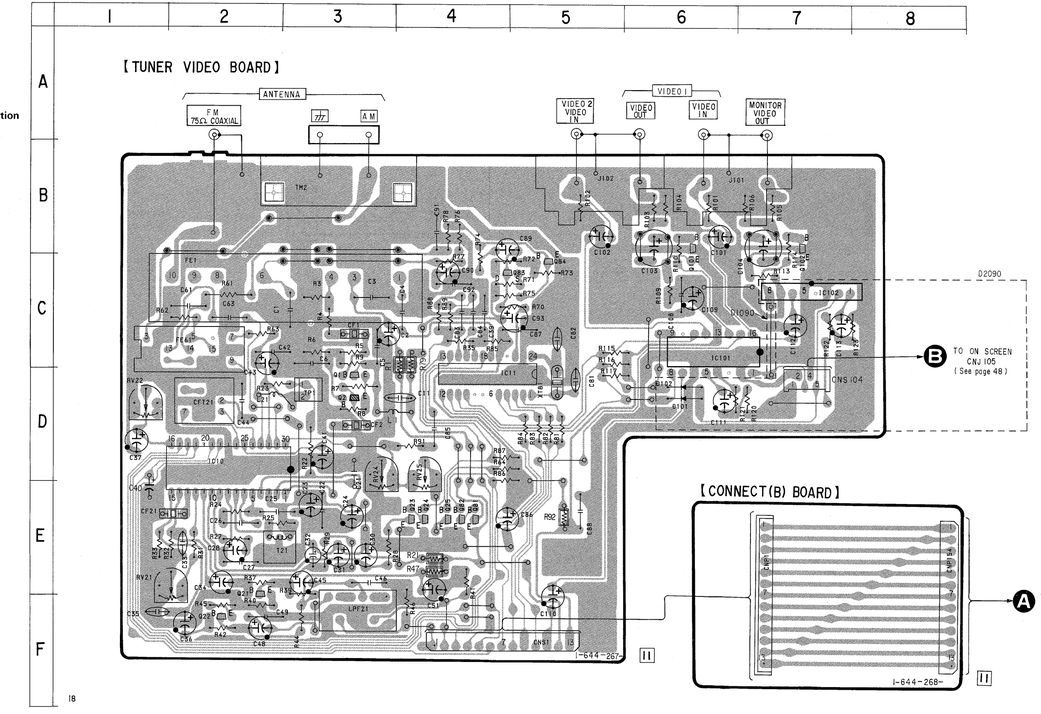


SEL3810A-CD

4-3. PRINTED WIRING BOARDS —TUNER Section—

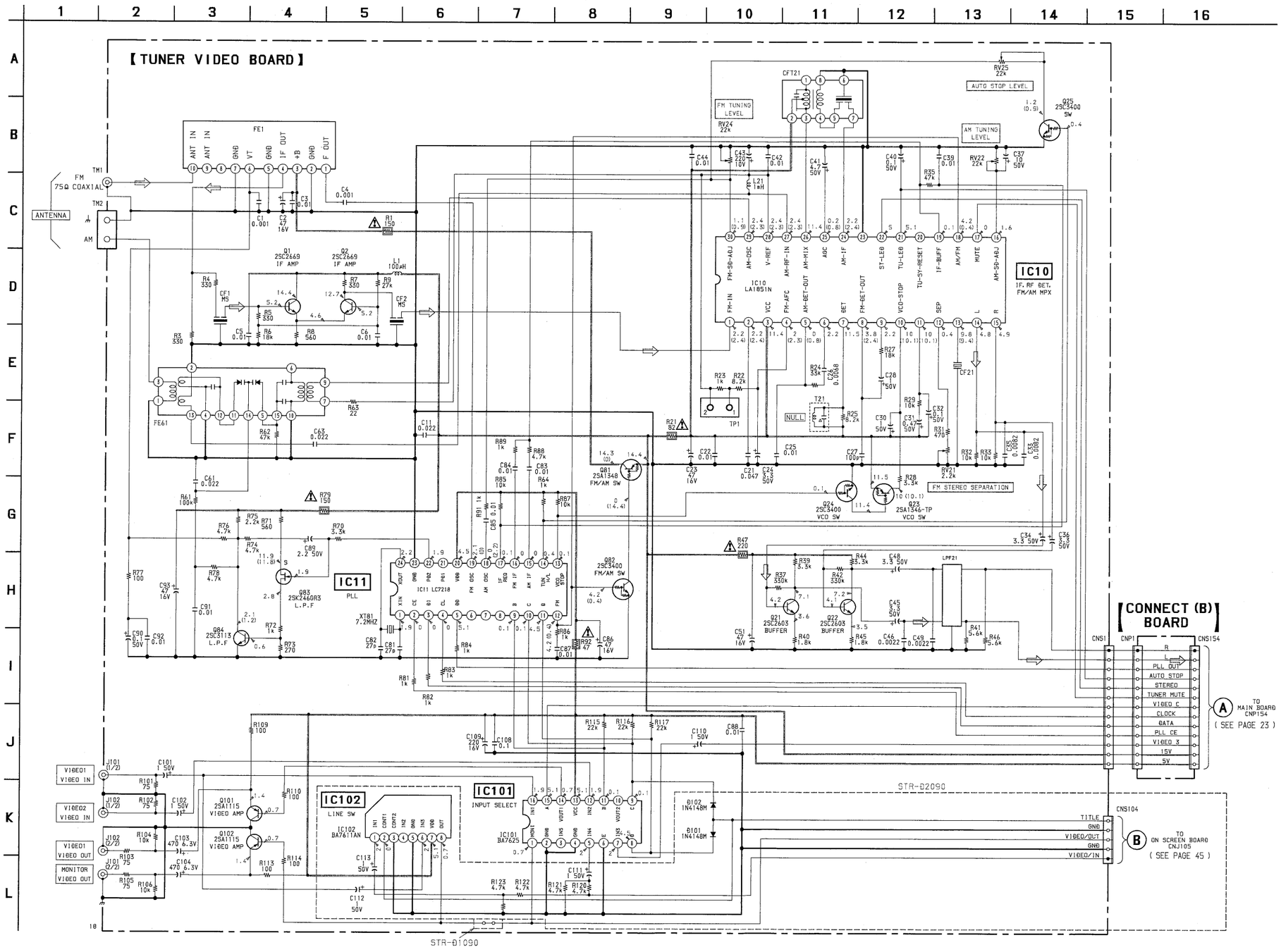
● Semiconductor Location

Ref. No.	Location
D101	D-6
D102	D-6
IC10	D-2
IC11	D-4
IC101	C-6
IC102	C-7
Q1	D-3
Q2	D-3
Q21	E-2
Q22	F-2
Q23	E-4
Q24	E-4
Q25	E-4
Q81	E-4
Q82	E-4
Q83	C-4
Q84	C-5
Q101	B-6
Q102	B-7



Note:
- ○——: parts extracted from the component side.
- ——: parts extracted from the conductor side.
- ■: parts mounted on the conductor side.

4-4. SCHEMATIC DIAGRAM —TUNER Section—



Note:

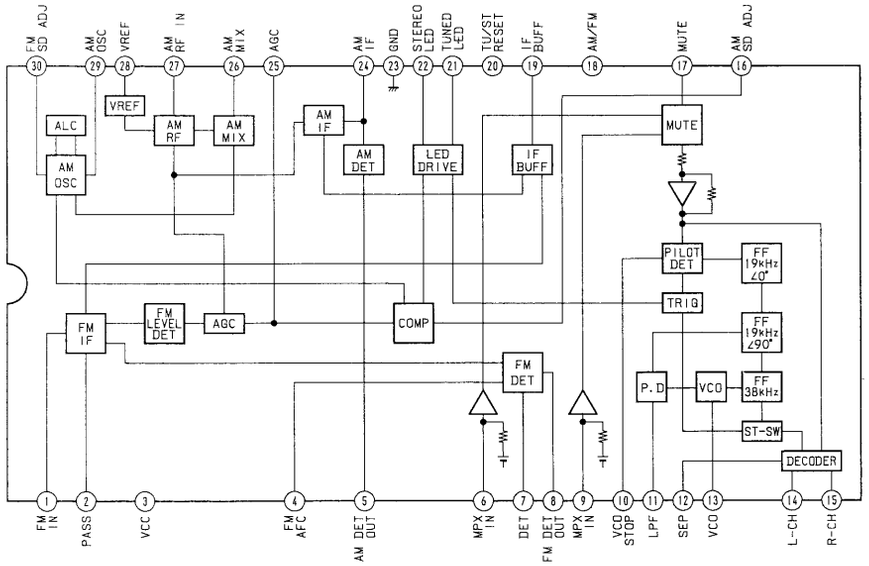
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ⚠ : nonflammable resistor.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

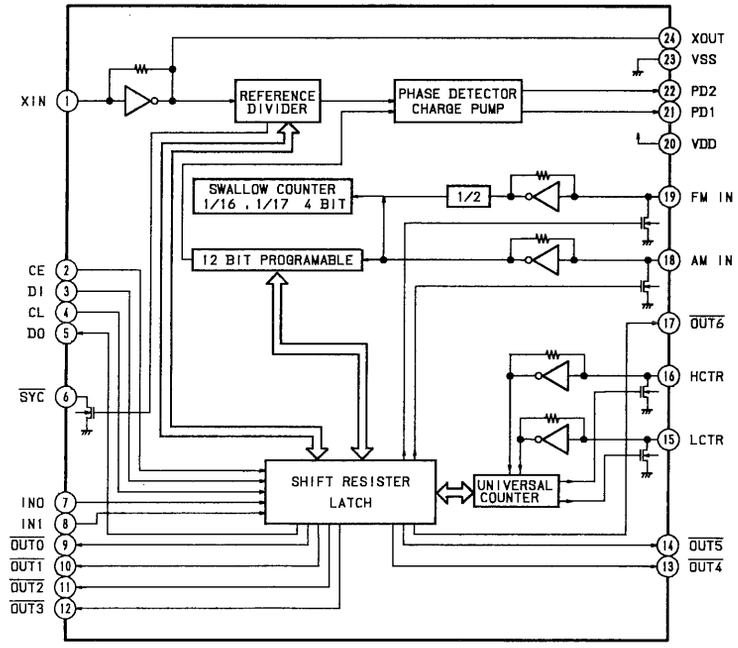
- ▭ : B+ Line
- ▭ : B— Line
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

● IC Block Diagrams

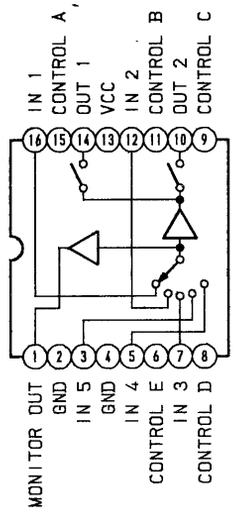
IC10 LA1851N



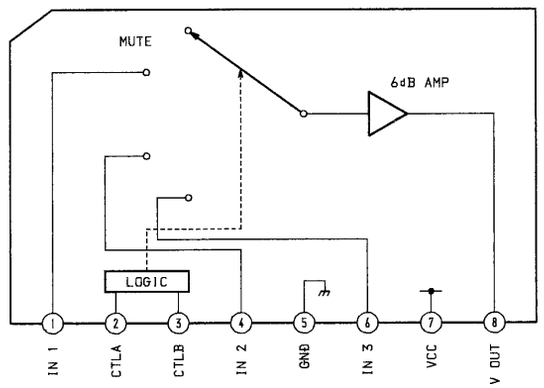
IC11 LC7218



IC101 BA7625

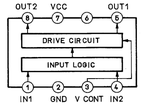


IC102 BA7611AN

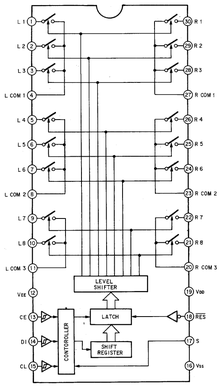


● IC Block Diagrams

IC231 LB1639



IC510, 511 LC7822



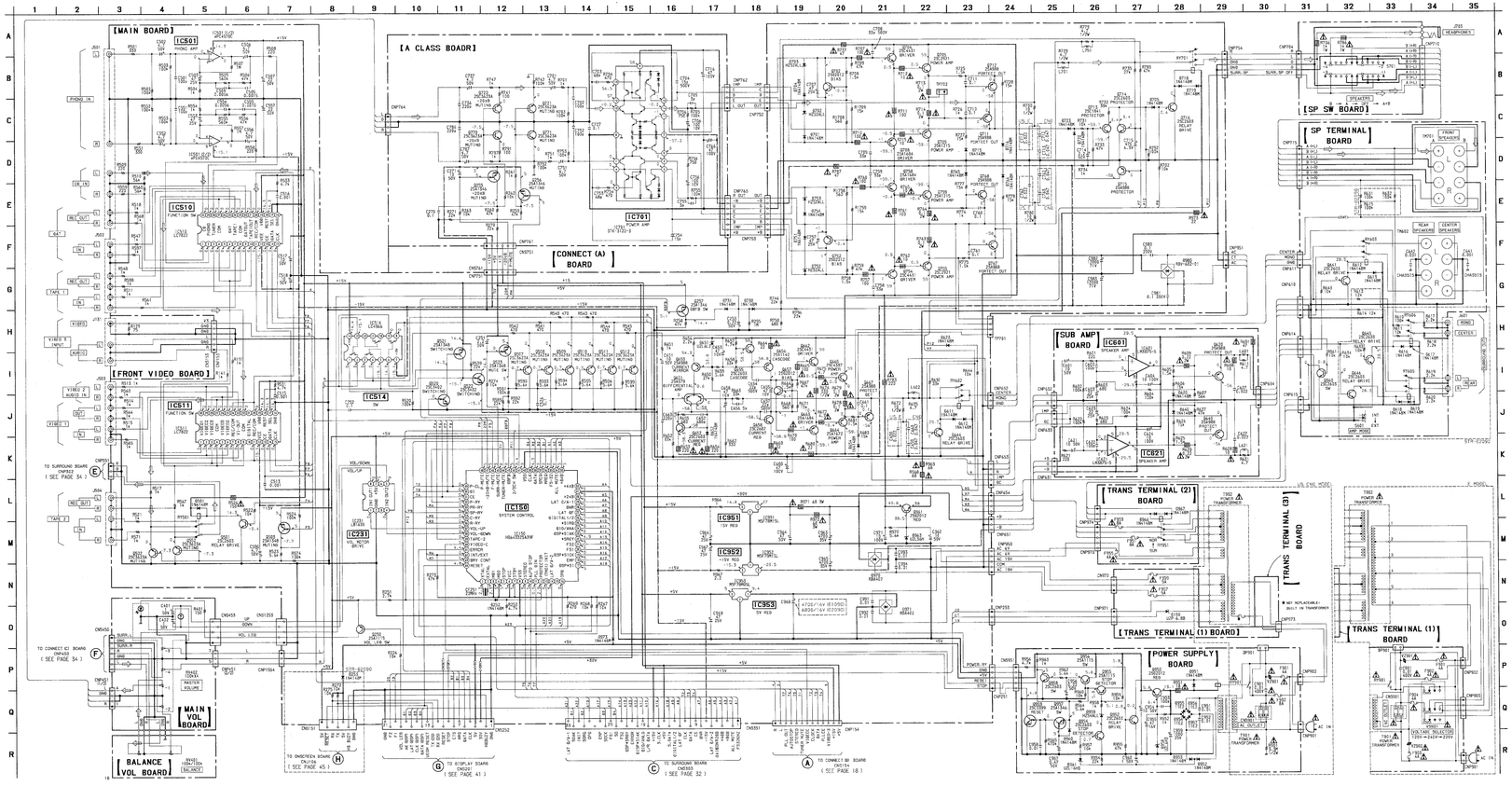
4-5. SCHEMATIC DIAGRAM —MAIN Section—

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ▲ : nonflammable resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line
- ▬▬ : B− Line
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - ⇨ : FM
  - ⇨ : CD
  - CND: Canadian



4-6. PRINTED WIRING BOARDS —MAIN Section—

• See page 13 for Circuit Boards Location and Semiconductor Lead Layouts.

● **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D150	K-29	D963	H-9	Q655	J-7
D252	F-14	D966	K-25	Q656	J-7
D253	E-12	D967	K-25	Q657	K-9
D501	I-18	D970	G-7	Q658	I-9
D610	H-10	D971	G-9	Q662	J-8
D611	H-10	D973	F-13	Q663	J-9
D612	B-11	D980	H-13	Q664	K-9
D613	B-11			Q665	K-8
D616	B-16	IC150	F-14	Q667	J-9
D617	B-16	IC231	G-13	Q702	K-16
D618	B-14	IC501	D-17	Q704	J-17
D619	B-14	IC510	F-17	Q705	K-17
D620	J-2	IC511	H-17	Q708	J-16
D623	G-13	IC514	E-10	Q709	K-15
D640	J-5	IC601	K-2	Q711	J-15
D651	I-8	IC621	K-5	Q712	J-17
D652	I-8	IC701	H-22	Q713	J-16
D654	I-9	IC951	E-8	Q714	J-16
D701	J-16	IC952	D-8	Q715	J-16
D702	J-16	IC953	F-9	Q716	H-12
D703	J-17			Q720	F-22
D704	J-17	Q250	G-12	Q721	F-22
D705	G-13	Q255	F-22	Q752	J-11
D715	J-15	Q256	F-21	Q754	J-10
D716	J-17	Q257	G-12	Q755	K-11
D718	H-13	Q501	I-18	Q758	J-11
D719	H-13	Q502	J-18	Q767	J-10
D720	J-16	Q503	H-16	Q768	J-12
D723	J-17	Q507	E-11	Q770	F-22
D730	H-12	Q508	E-11	Q771	F-22
D731	H-12	Q509	F-10	Q952	B-25
D751	J-10	Q510	F-10	Q953	D-26
D752	J-10	Q511	F-10	Q954	D-25
D753	J-11	Q512	F-11	Q955	C-25
D754	J-12	Q520	E-9	Q956	C-25
D765	J-12	Q521	E-9	Q957	C-25
D766	I-10	Q522	F-10	Q958	D-25
D951	B-26	Q523	E-11	Q959	B-25
D952	E-25	Q552	J-18	Q961	G-9
D953	E-26	Q620	J-2		
D954	E-25	Q640	J-4		
D955	E-25	Q641	B-12		
D956	E-25	Q644	H-10		
D957	E-25	Q645	B-17		
D958	D-25	Q646	B-17		
D959	D-25	Q651	I-8		
D960	C-25	Q652	I-8		
D961	D-25	Q653	I-8		

Note:

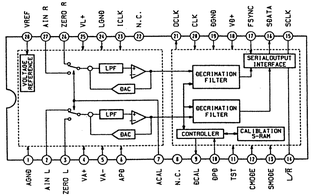
- ● ○——: parts extracted from the component side.
- ● ——: parts extracted from the conductor side.
- ● ■ : parts mounted on the conductor side.

CND: Canadian

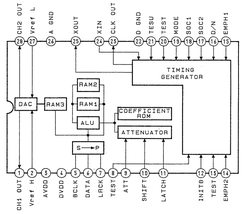
【SP SW BOARD】
【FRONT VIDEO BOARD】
【SP TERMINAL BOARD】
【CONNECT(A) BOARD】
【A CLASS BOARD】
【POWER SUPPLY BOARD】
【BALANCE VOL BOARD】
【MAIN VOL BOARD】
【MAIN BOARD】
【SUB AMP BOARD】
【TRANS TERMINAL(2) BOARD】
【TRANS TERMINAL(3) BOARD】
TRANS TERMINAL(1) BOARD

● IC Block Diagrams

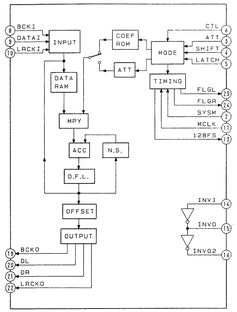
IC301 CS5339-KP



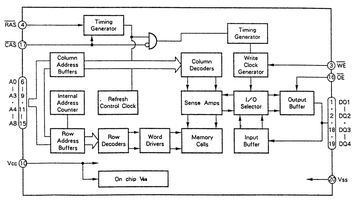
IC307 LC7883K



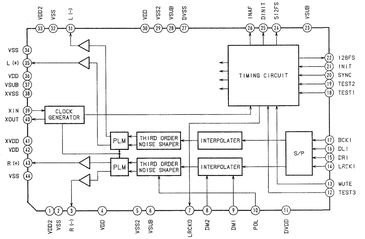
IC405 CXD2560M



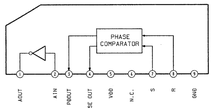
IC406 LC324256-10



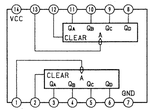
IC408 CXD2552Q-2



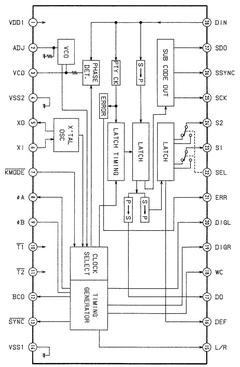
IC409 TC5081AP



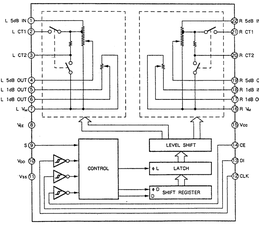
IC410 SN74HC393ANS



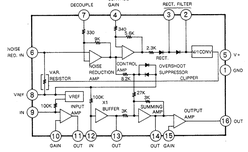
IC417 YM3623B



IC418 LC7535



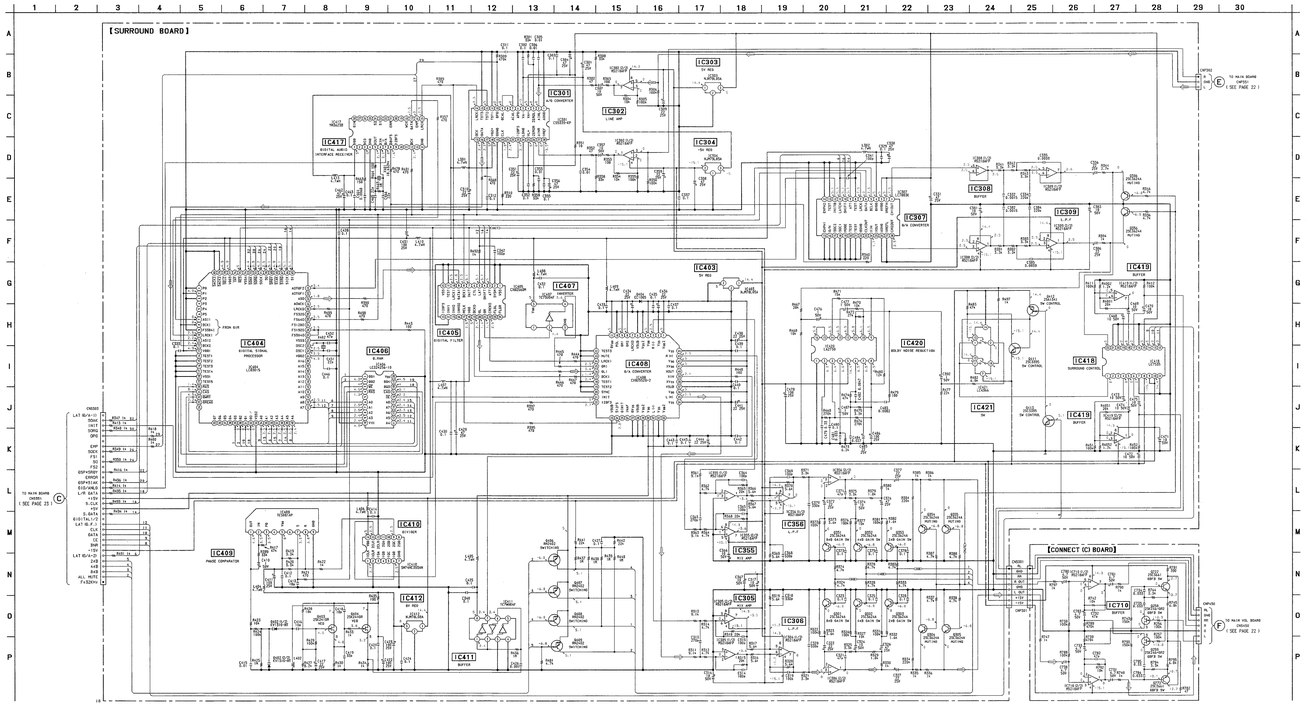
IC420 LA2730



Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line
- : B− Line
- : adjustment for repair.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path. : FM

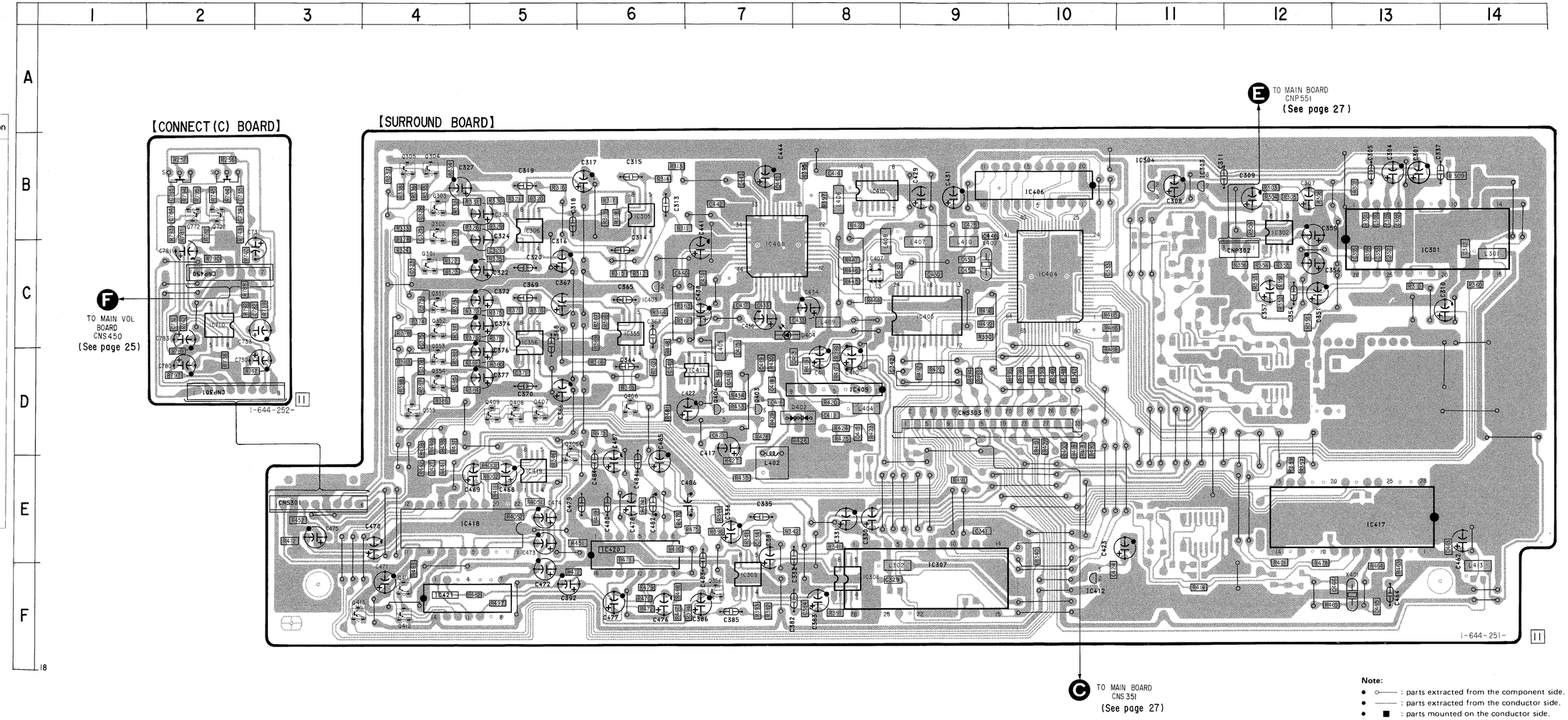


4-8. PRINTED WIRING BOARDS —DIGITAL Section—

• See page 13 for Circuit Boards Location and Semiconductor Lead Layouts.

● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D402	D-8	Q258	B-2
D404	C-7	Q259	B-2
		Q301	C-4
IC301	C-13	Q302	B-4
IC302	B-12	Q303	B-4
IC303	B-11	Q304	B-4
IC304	B-11	Q305	B-4
IC305	B-6	Q306	D-5
IC306	B-5	Q351	C-4
IC307	E-9	Q352	C-4
IC308	F-8	Q353	C-4
IC309	F-7	Q354	D-4
IC355	C-6	Q355	D-4
IC356	C-5	Q356	F-7
IC403	C-6	Q403	D-7
IC404	C-10	Q404	D-7
IC405	C-9	Q406	D 6
IC406	B-10	Q407	D-5
IC407	C-8	Q408	D-5
IC408	C-7	Q409	D-5
IC409	D-8	Q411	F-4
IC410	B-8	Q412	F-4
IC411	D-7	Q413	F-3
IC412	F-10	Q722	B-2
IC417	E-13	Q772	B-2
IC418	E-4		
IC419	E-5		
IC420	E-6		
IC421	F-4		
IC710	C-2		



Note:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.

4-9. PRINTED WIRING BOARDS —DISPLAY Section—

• See page 13 for Circuit Boards Location and Semiconductor Lead Layouts.

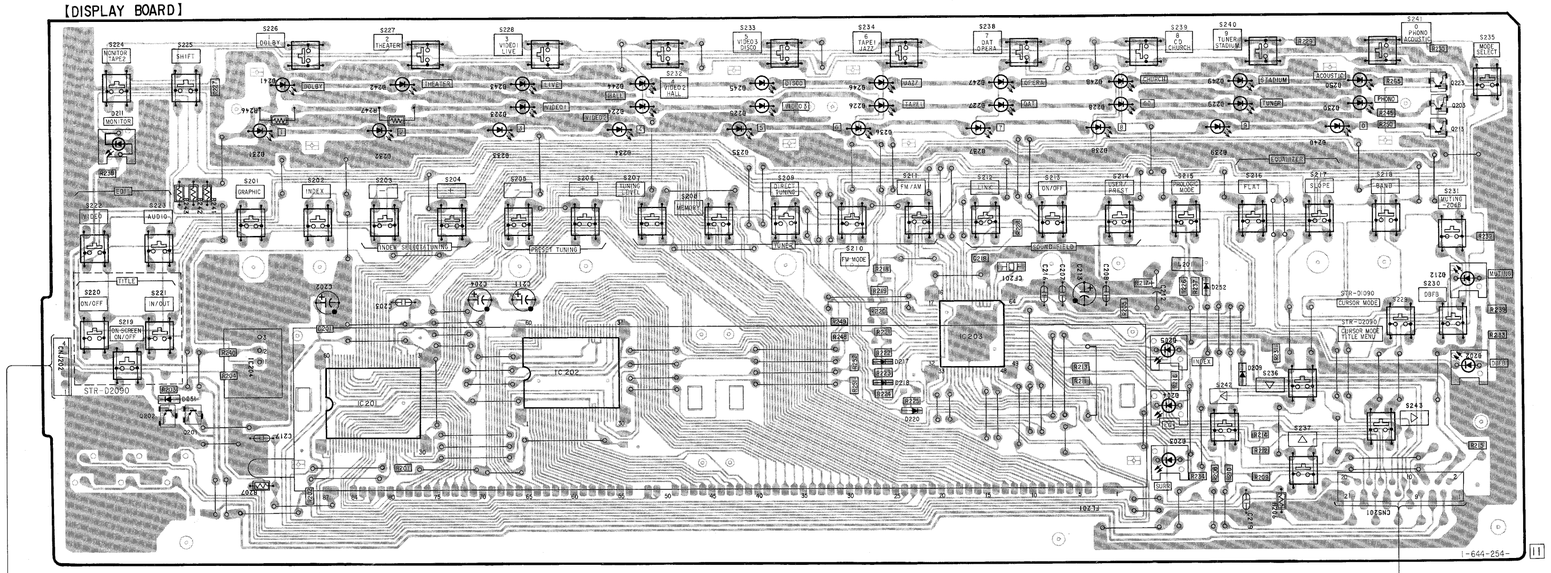
● **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D202	D-14	IC201	D-4
D203	E-11	IC202	D-6
D204	D-11	IC203	D-9
D205	D-11	IC204	D-3
D209	D-12		
D211	B-2	Q201	E-2
D212	C-14	Q202	E-2
D217	D-9	Q203	B-13
D218	D-9	Q213	B-13
D220	E-9	Q223	B-13
D223	B-5		
D224	B-6		
D225	B-7		
D226	B-9		
D227	B-10		
D228	B-11		
D229	B-12		
D230	B-13		
D231	B-3		
D232	B-4		
D233	B-5		
D234	B-6		
D235	B-7		
D236	B-8		
D237	B-9		
D238	B-10		
D239	B-11		
D240	B-12		
D241	B-3		
D242	B-4		
D243	B-5		
D244	B-6		
D245	B-7		
D246	B-9		
D247	B-10		
D248	B-11		
D249	B-12		
D250	B-13		
D251	D-2		
D252	D-11		

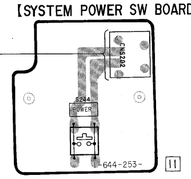
Note:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.

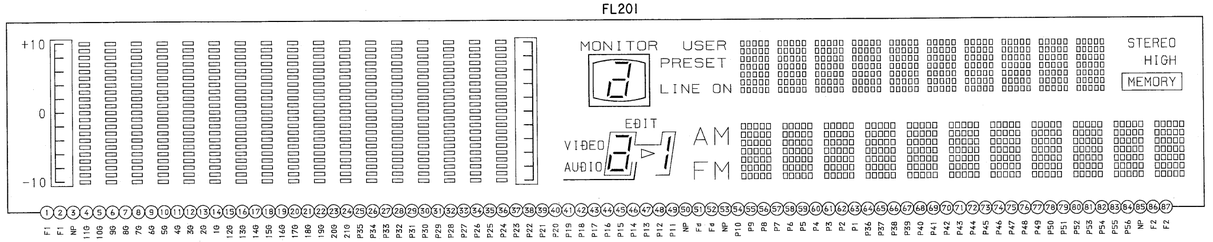
[DISPLAY BOARD]



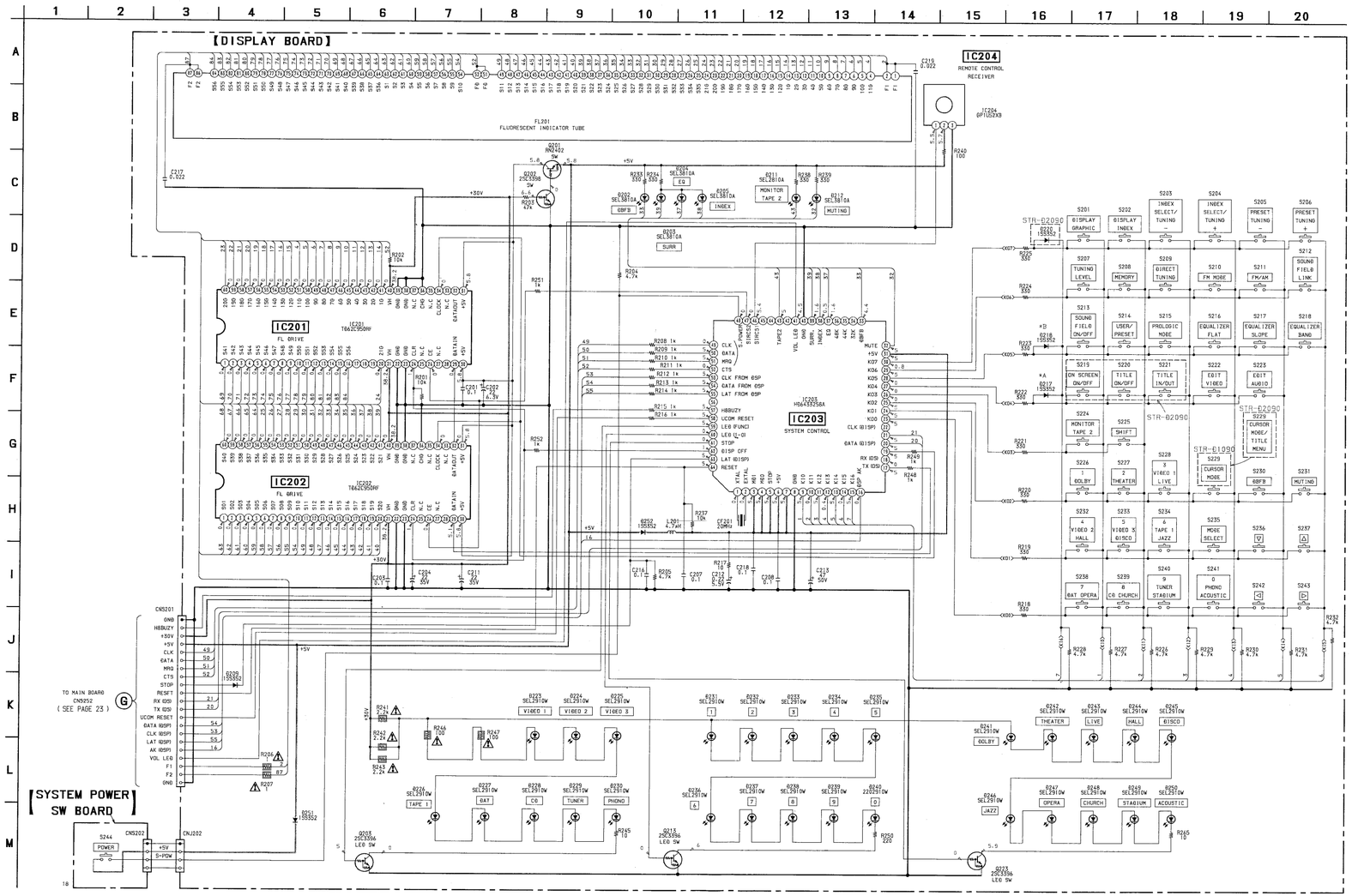
[SYSTEM POWER SW BOARD]



FL201

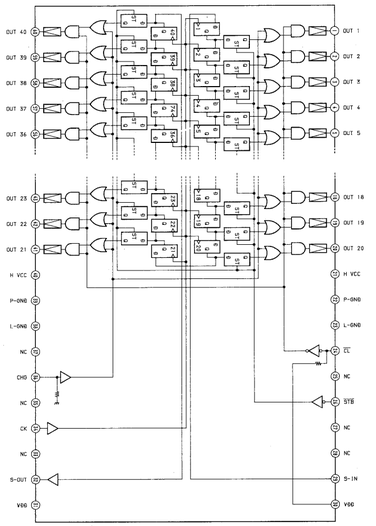


4-10. SCHEMATIC DIAGRAMS —DISPLAY Section—



● IC Block Diagram

IC201, 202 TD62C950RF



Note:

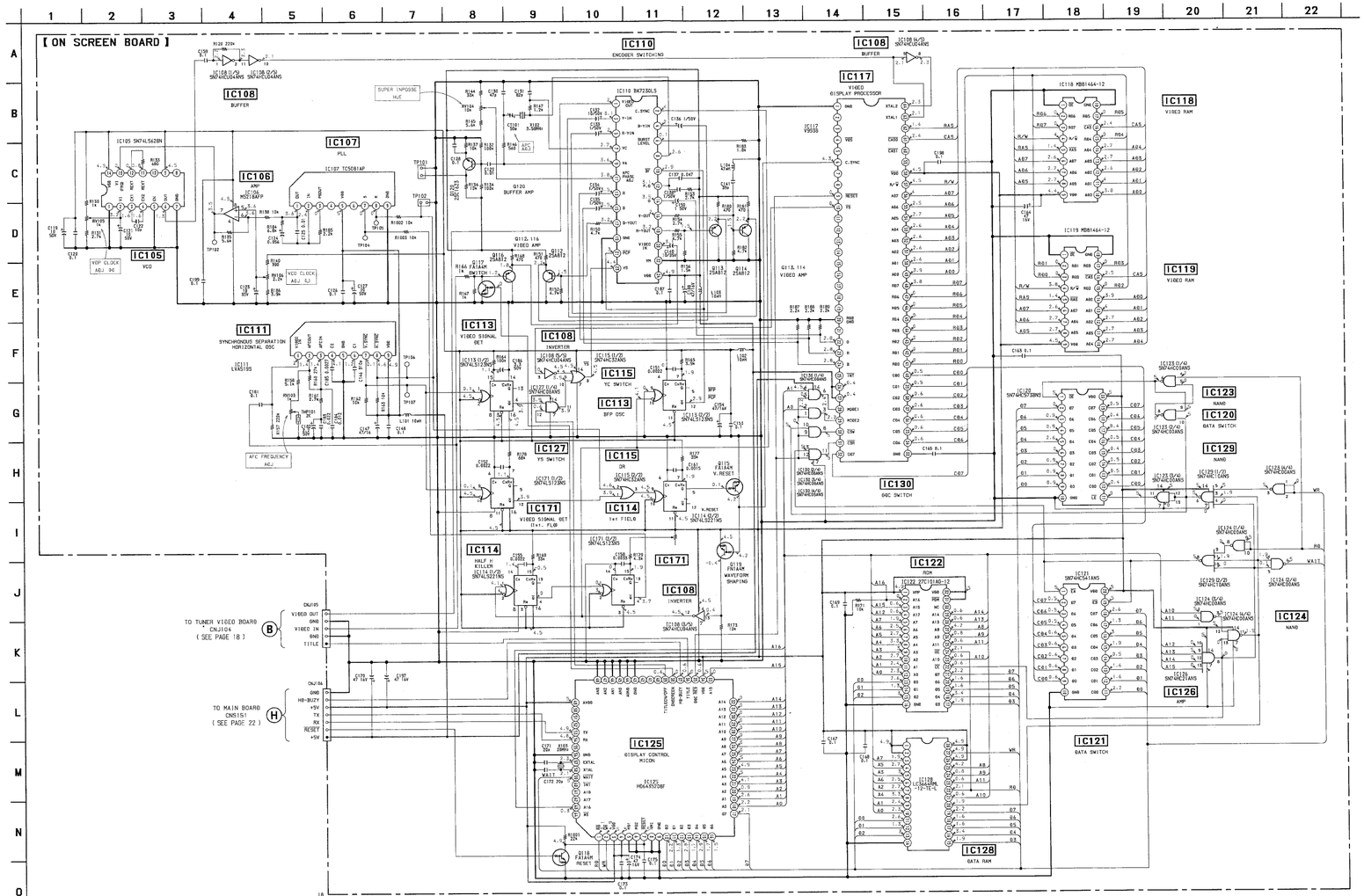
- All capacitors are in μF unless noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- : nonflammable resistor.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line
- : B− Line
- : adjustment for repair.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- See page10 for *A, *B note.

4-11. SCHEMATIC DIAGRAM —VDP Section— (STR-D2090 only)

• See page 49 for IC Block Diagrams.



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : nonflammable resistor.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

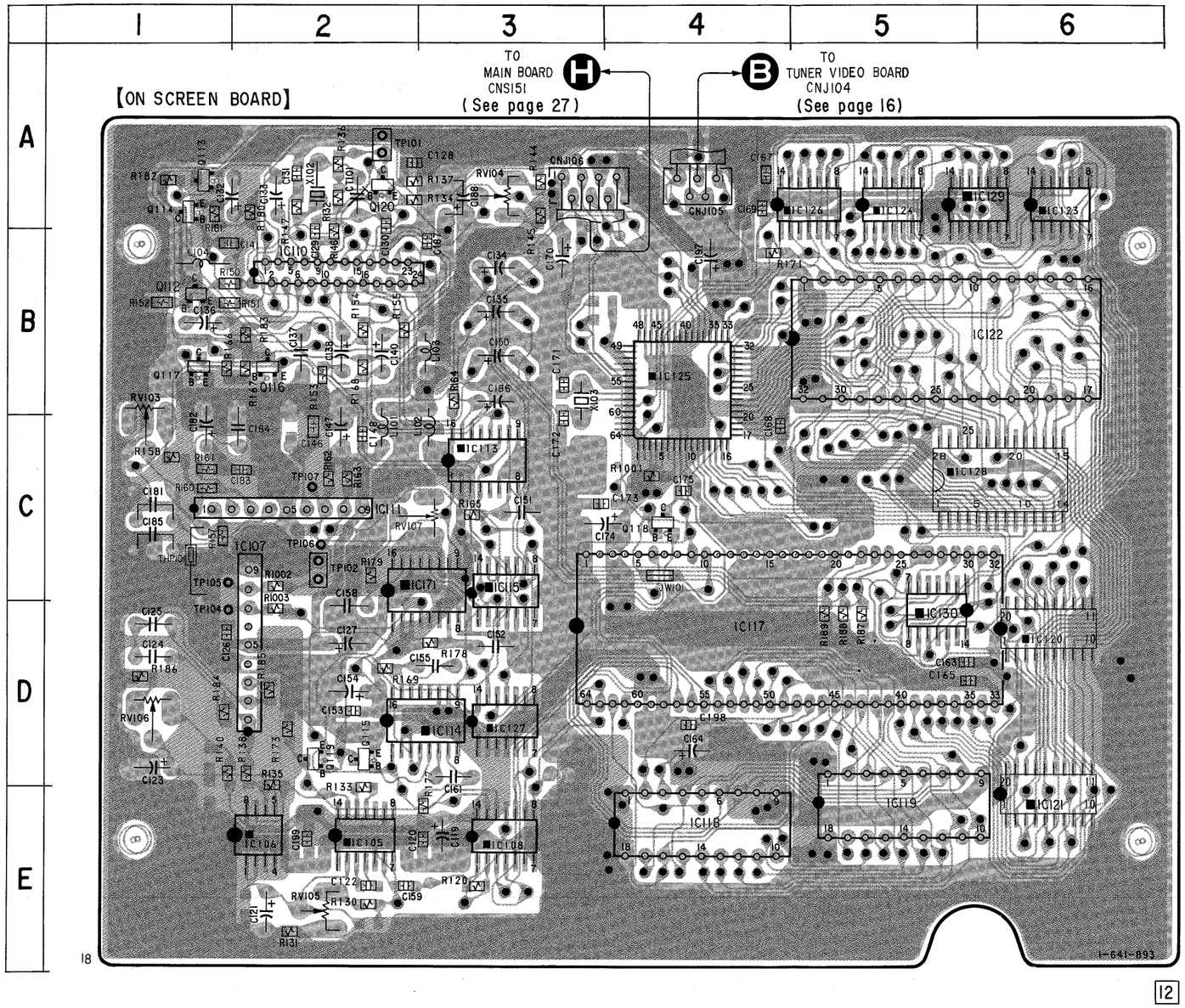
- ⊛ ▭▭▭ : B+ Line
- ⊛ ▭▭▭ : B− Line
- ⊛ ▭ : adjustment for repair.
- ⊛ Voltages are dc with respect to ground under no-signal (detuned) conditions.
- ⊛ Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

4-12. PRINTED WIRING BOARD —VDP Section— (STR-2090 only)

• See page 13 for Circuit Boards Location and Semiconductor Lead Layouts.

● Semiconductor Location

Ref. No.	Location
IC105	E-2
IC106	E-2
IC107	D-2
IC108	E-3
IC110	B-2
IC111	C-2
IC113	C-3
IC114	D-3
IC115	C-3
IC117	D-4
IC118	E-4
IC119	E-5
IC120	D-6
IC121	E-6
IC123	A-6
IC124	A-5
IC125	B-4
IC126	A-5
IC127	D-3
IC128	C-6
IC129	A-6
IC130	D-5
IC171	C-3
Q112	B-1
Q113	A-1
Q114	A-1
Q115	D-2
Q116	B-2
Q117	B-1
Q118	C-4
Q119	D-2
Q120	A-2

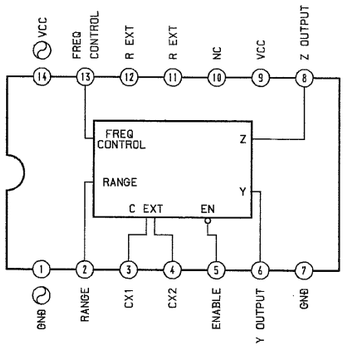


Note:

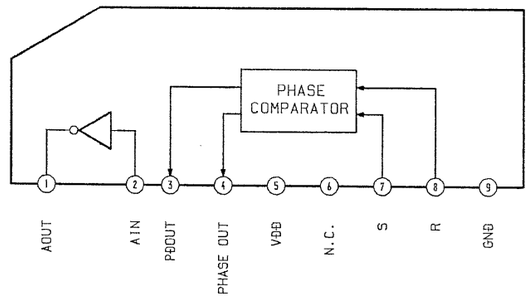
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- • : Through hole
- ▒ : Pattern on the side which is seen.
- ▒ : Pattern of the rear side.

● IC Block Diagrams

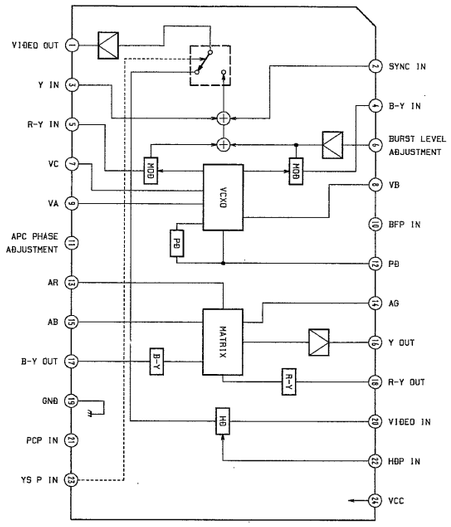
IC105 SN74LS628NS



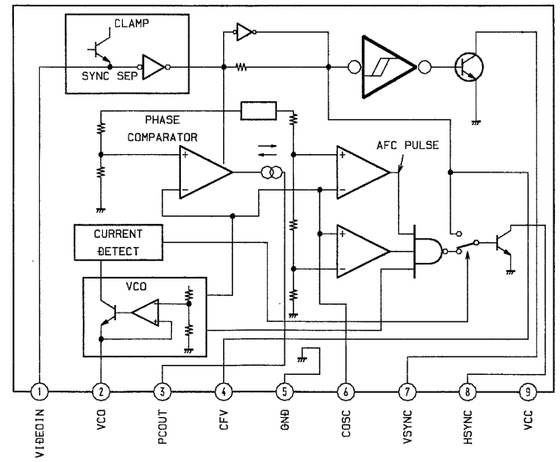
IC107 TC5081AP



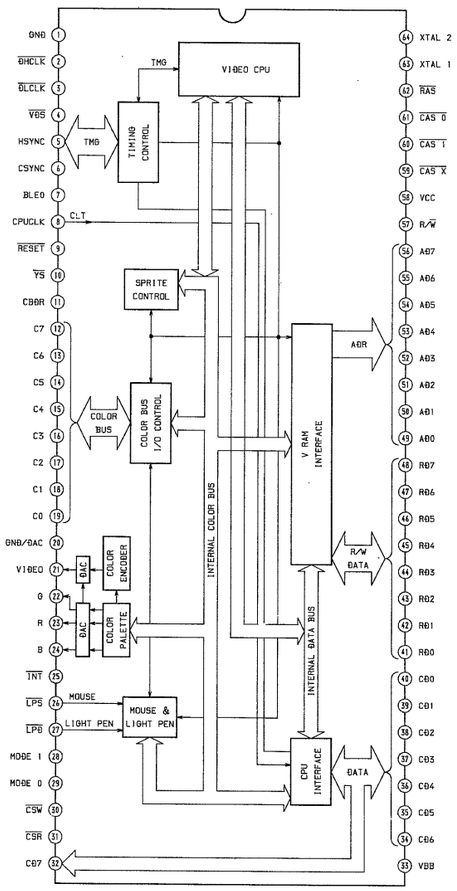
IC110 BA7230LS



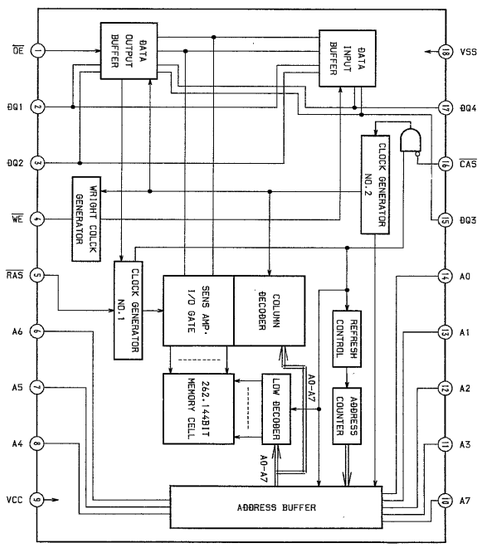
IC111 LVA519S



IC117 V9938

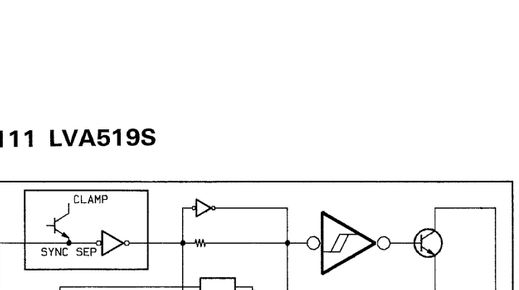


IC118, 119 MB81464-12

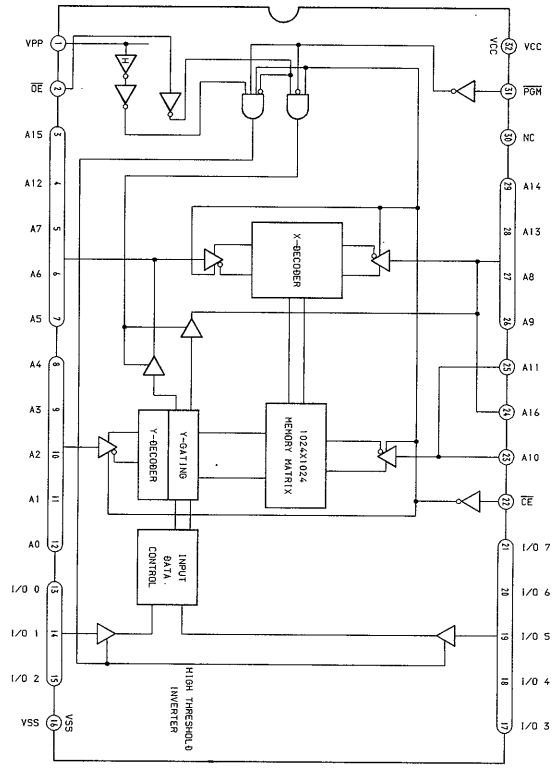


IC120 SN74HC573BNS

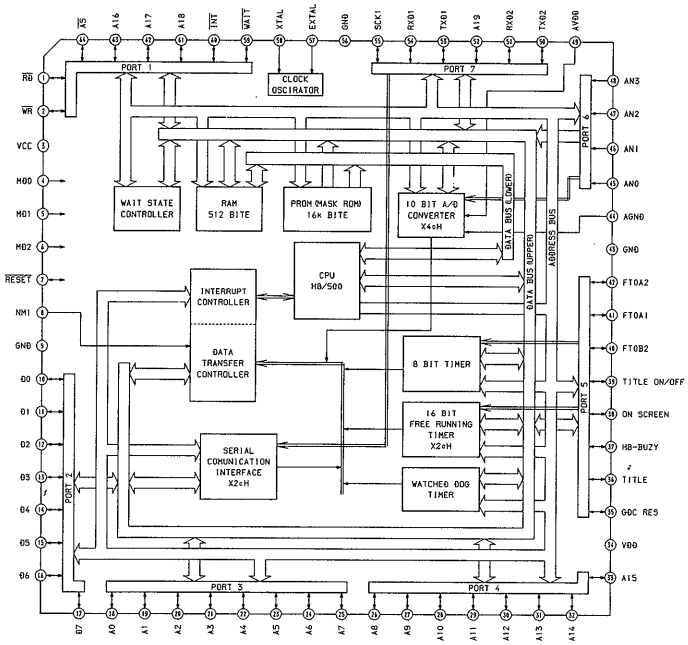
IC121 SN74HC541ANS



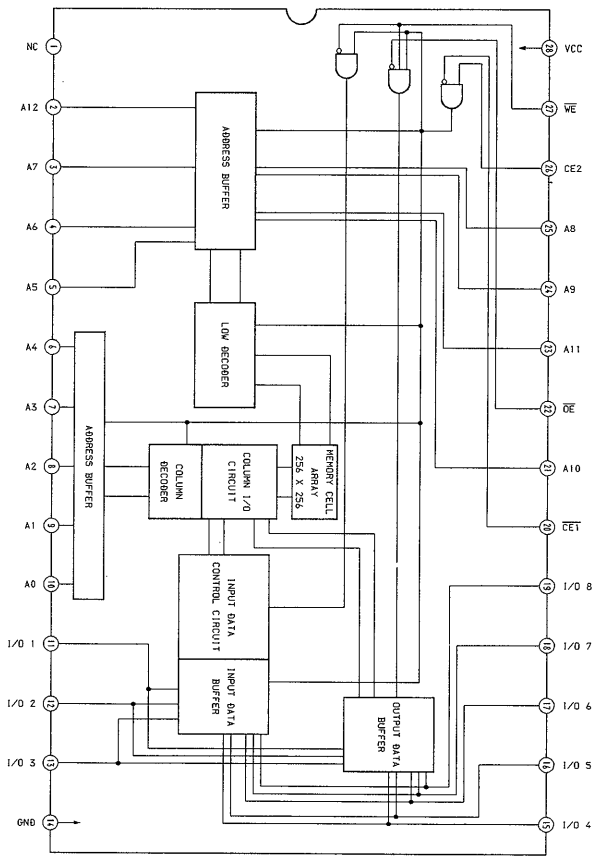
IC122 HN27C101AP12-R001



IC125 HD6435208F



IC128 LC3664RML-12



SECTION 5
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE(WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color

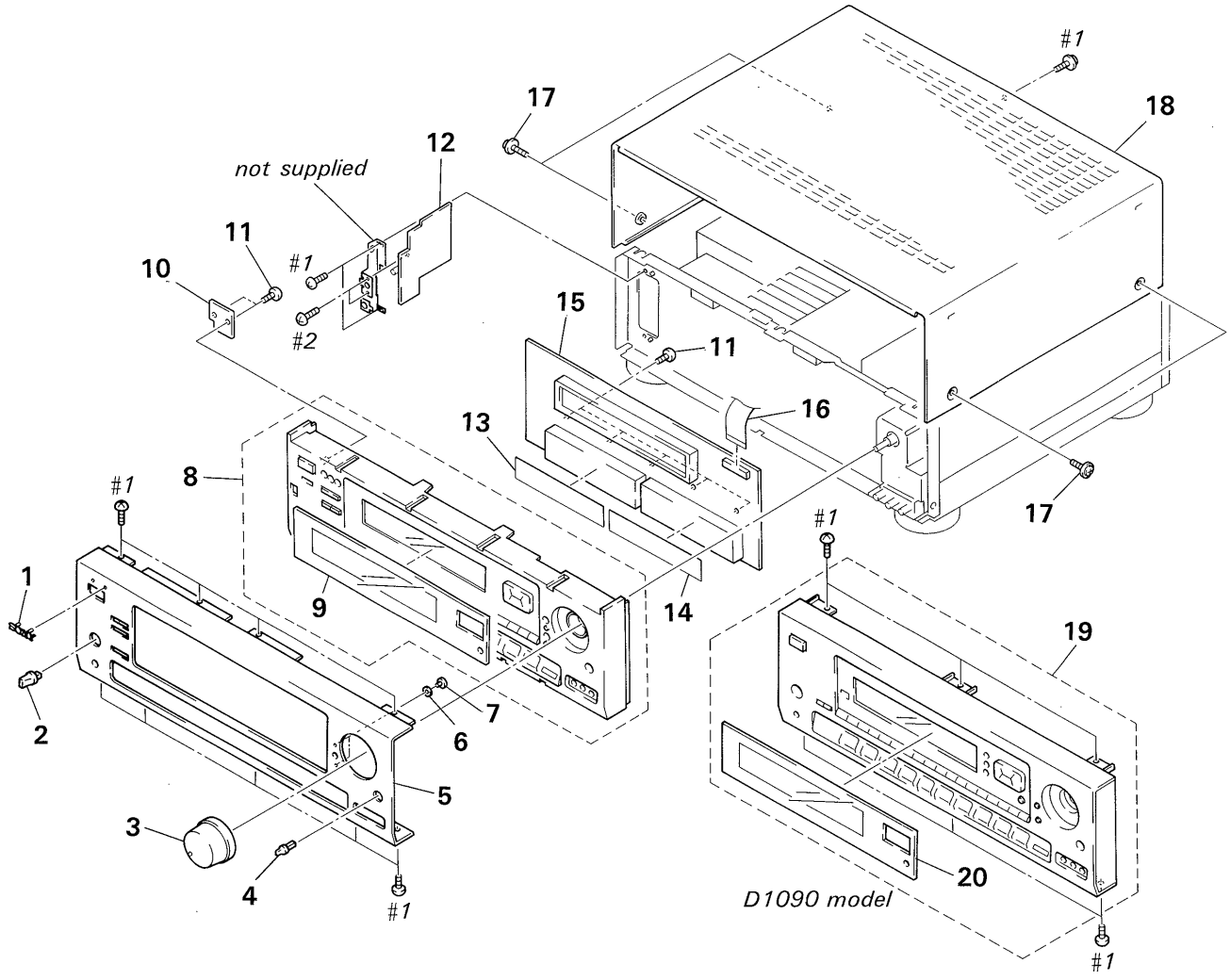
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

CND: Canadian

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

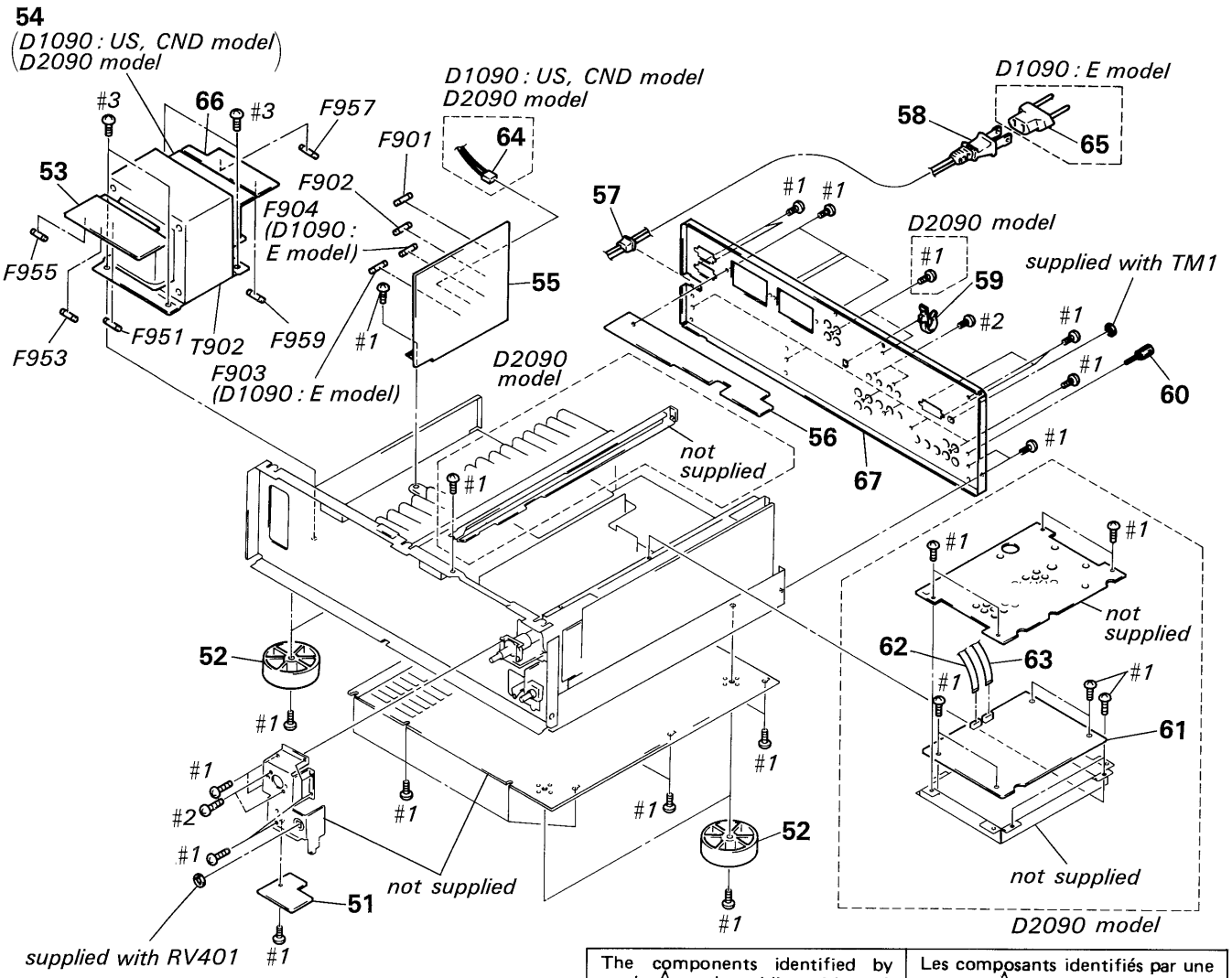
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-908-848-01	EMBLEM, SONY (D2090)	
2	4-908-097-21	KNOB (SPEAKER)	
3	X-4941-650-1	KNOB (A) ASSY (VOLUME) (D2090)	
3	X-4943-036-1	KNOB ASSY (VOLUME) (D1090)	
4	4-925-014-01	KNOB (DIA. 10) (BALANCE)	
5	4-952-498-01	PANEL (F), FRONT (D2090)	
* 6	4-927-881-01	SHEET, ADHESIVE (D2090)	
7	4-938-518-01	INDICATOR (C) (D2090)	
8	X-4942-708-1	PANEL (B) ASSY, FRONT (D2090)	
9	4-952-486-11	PLATE (A), INDICATION (D2090)	
* 10	1-644-253-11	SYSTEM POWER SW BOARD	
11	4-951-620-01	SCREW (2.6X8), +BVTP	
* 12	1-644-263-11	SP SW BOARD	
* 13	4-954-181-01	PLATE (F), INDICATION (1-5)	
* 14	4-954-181-11	PLATE (F), INDICATION (6-10)	
* 15	A-4347-945-A	DISPLAY BOARD, COMPLETE (D2090)	
* 15	A-4347-977-A	DISPLAY BOARD, COMPLETE (D1090)	
16	1-690-091-11	WIRE, FLAT TYPE (21 CORE)	
17	3-704-366-01	SCREW (CASE) (M3X8)	
* 18	4-927-877-11	CASE	
19	X-4942-707-1	PANEL ASSY, FRONT (D1090)	
20	4-952-486-01	PLATE (A), INDICATION (D1090)	

5-2. CHASSIS SECTION

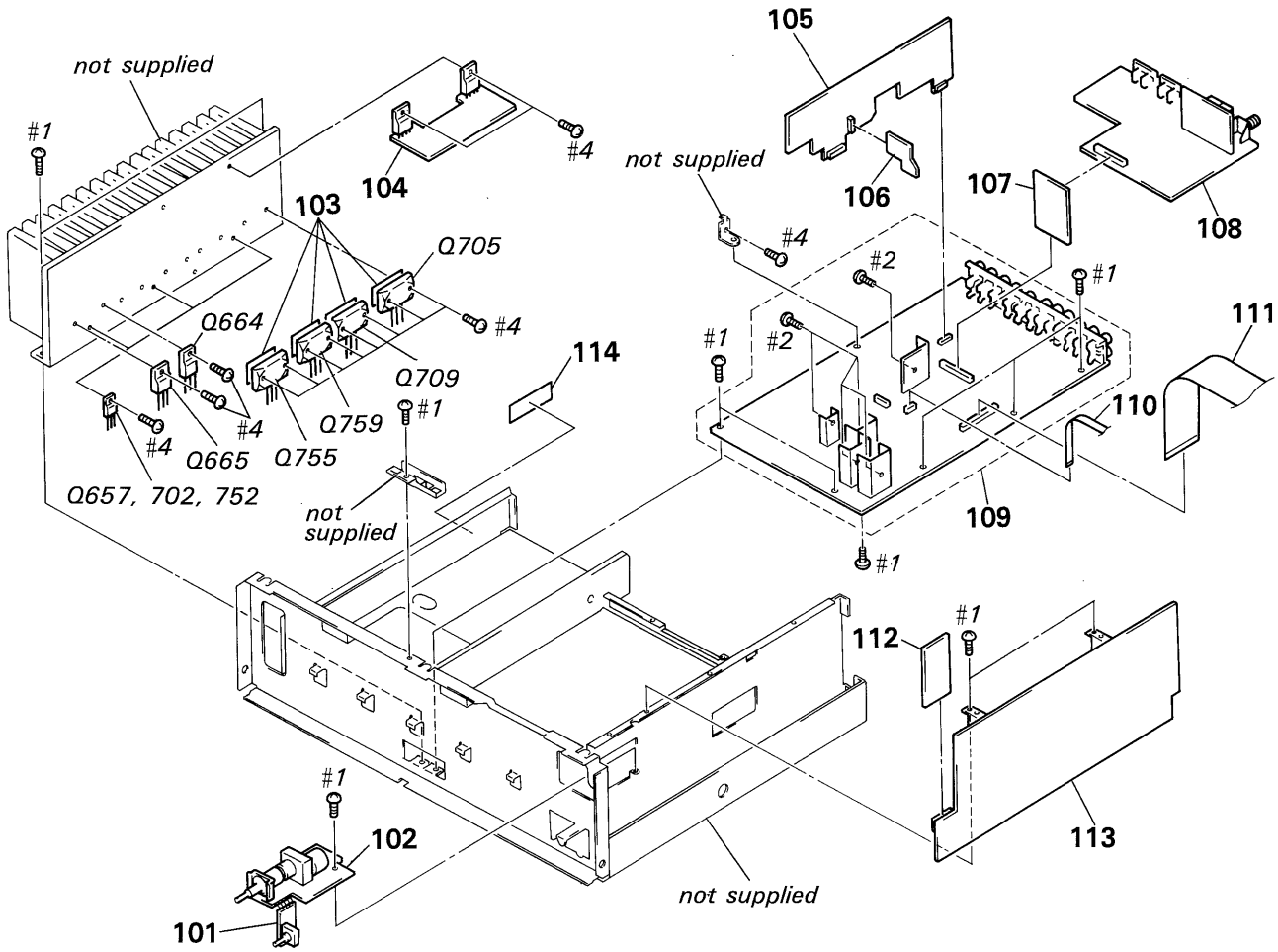


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifé.

Ref. No.	Part No.	Description	Remark
* 51	1-644-270-11	FRONT VIDEO BOARD	
52	X-4942-706-1	FOOT (58175) ASSY	
* 53	1-644-272-11	TRANS TERMINAL (2) BOARD	
* 54	1-644-273-11	TRANS TERMINAL (3) BOARD (D1090:US, CND/D2090)	
* 55	A-4347-955-A	POWER SUPPLY BOARD, COMPLETE (D1090:US, CND/D2090)	
* 55	A-4347-956-A	POWER SUPPLY BOARD, COMPLETE (D1090:E)	
* 56	1-644-261-11	SP TERMINAL BOARD	
* 57	3-703-244-00	BUSHING (2104), CORD	
⚠58	1-575-975-11	CORD, POWER (D1090:US, CND/D2090)	
⚠58	1-590-074-11	CORD, POWER (D1090:E)	
* 59	4-949-235-01	HOOK	
60	4-947-010-01	SCREW, FEEDER FIXED	
* 61	A-4347-944-A	ON SCREEN BOARD, COMPLETE (D2090)	
62	1-575-777-11	WIRE, FLAT TYPE (5 CORE) (D2090)	
63	1-690-421-11	WIRE, FLAT TYPE (7 CORE) (D2090)	
64	1-696-073-21	LEAD (WITH CONNECTOR) (2 CORE) (D1090:US, CND/D2090)	
⚠65	1-569-007-11	ADAPTER, CONVERSION 2P (D1090:E)	
* 66	1-644-271-12	TRANS TERMINAL (1) BOARD	

Ref. No.	Part No.	Description	Remark
* 67	4-952-499-01	PANEL, BACK (D1090:US)	
* 67	4-952-499-11	PANEL, BACK (D1090:CND)	
* 67	4-952-499-21	PANEL, BACK (D1090:E)	
* 67	4-952-499-31	PANEL, BACK (D2090:US)	
* 67	4-952-499-41	PANEL, BACK (D2090:CND)	
⚠F901	1-532-350-00	FUSE (4A) (D1090:E)	
⚠F901	1-576-108-11	FUSE (4A) (D1090:US, CND/D2090)	
⚠F902	1-532-350-00	FUSE (4A) (D1090:E)	
⚠F902	1-532-749-11	FUSE, GLASS TUBE (8A) (D1090:US, CND/D2090)	
⚠F903	1-532-350-00	FUSE (4A) (D1090:E)	
⚠F904	1-532-350-00	FUSE (4A) (D1090:E)	
⚠F951	1-532-749-11	FUSE, GLASS TUBE (8A)	
⚠F953	1-532-749-11	FUSE, GLASS TUBE (8A)	
⚠F955	1-576-108-11	FUSE (4A)	
⚠F957	1-576-109-11	FUSE (5A)	
⚠F959	1-576-109-11	FUSE (5A)	
⚠T902	1-697-009-11	TRANSFORMER, POWER (D1090:US/D2090:US)	
⚠T902	1-697-010-11	TRANSFORMER, POWER (D1090:CND/D2090:CND)	
⚠T902	1-697-011-11	TRANSFORMER, POWER (D1090:E)	

5-3. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
* 101	1-644-266-11	BALANCE VOL BOARD	
* 102	1-644-265-11	MAIN VOL BOARD	
103	4-885-901-31	SHEET, RADIATION	
* 104	A-4347-960-A	SUB AMP BOARD, COMPLETE	
* 105	A-4347-975-A	A CLASS BOARD, COMPLETE	
* 106	1-644-257-11	CONNECT (A) BOARD	
* 107	1-644-268-11	CONNECT (B) BOARD	
* 108	A-4347-938-A	TUNER VIDEO BOARD, COMPLETE (D2090)	
* 108	A-4347-954-A	TUNER VIDEO BOARD, COMPLETE (D1090)	
* 109	A-4347-940-A	MAIN BOARD, COMPLETE (D2090:US)	
* 109	A-4347-941-A	MAIN BOARD, COMPLETE (D2090:CND)	
* 109	A-4347-974-A	MAIN BOARD, COMPLETE (D1090:CND)	
* 109	A-4356-005-A	MAIN BOARD, COMPLETE (D1090:US, E)	
110	1-575-848-11	WIRE, FLAT TYPE (5 CORE)	

Ref. No.	Part No.	Description	Remark
111	1-696-550-11	WIRE (FLAT TYPE) (33 CORE)	
* 112	A-4356-309-A	CONNECT (C) BOARD, COMPLETE	
* 113	A-4347-979-A	SURROUND BOARD, COMPLETE	
* 114	3-703-044-26	LABEL, CAUTION	
Q657	8-729-209-15	TRANSISTOR 2SD2012	
Q664	8-729-321-24	TRANSISTOR 2SA1672-OY	
Q665	8-729-321-21	TRANSISTOR 2SC4387-OY	
Q702	8-729-209-15	TRANSISTOR 2SD2012	
Q705	8-729-320-96	TRANSISTOR 2SC2921-OPY	
Q709	8-729-320-73	TRANSISTOR 2SA1215-OY	
Q752	8-729-209-15	TRANSISTOR 2SD2012	
Q755	8-729-320-96	TRANSISTOR 2SC2921-OPY	
Q759	8-729-320-73	TRANSISTOR 2SA1215-OY	

SECTION 6
ELECTRICAL PARTS LIST

A CLASS BALANCE VOL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			Remark
*	A-4347-975-A	A CLASS BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C270	1-136-165-00	FILM	0.1uF	5%	50V
C271	1-124-907-11	ELECT	10uF	20%	50V
C701	1-124-927-11	ELECT	4.7uF	20%	100V
C702	1-164-070-11	CERAMIC	100PF	5%	50V
C703	1-162-219-31	CERAMIC	68PF	5%	50V
C704	1-102-316-00	CERAMIC	15PF	5%	500V
C705	1-102-936-00	CERAMIC	3.0PF	+-0.25PF	50V
C706	1-124-443-00	ELECT	100uF	20%	10V
C716	1-124-931-11	ELECT	47uF	20%	100V
C727	1-164-159-11	CERAMIC	0.1uF		50V
C736	1-164-077-11	CERAMIC	220PF	5%	50V
C737	1-124-927-11	ELECT	4.7uF	20%	100V
C751	1-124-927-11	ELECT	4.7uF	20%	100V
C752	1-164-070-11	CERAMIC	100PF	5%	50V
C753	1-162-219-31	CERAMIC	68PF	5%	50V
C754	1-102-316-00	CERAMIC	15PF	5%	500V
C755	1-102-936-00	CERAMIC	3.0PF	+-0.25PF	50V
C756	1-124-443-00	ELECT	100uF	20%	10V
C766	1-124-931-11	ELECT	47uF	20%	100V
C786	1-164-077-11	CERAMIC	220PF	5%	50V
C787	1-124-927-11	ELECT	4.7uF	20%	100V
		< CONNECTOR >			
CNP761	1-691-163-11	PIN, CONNECTOR 6P			
* CNP762	1-691-175-11	CONNECTOR (BOARD TO BOARD) 5P			
CNP763	1-691-178-11	CONNECTOR (BOARD TO BOARD) 8P			
CNP764	1-564-507-11	PLUG, CONNECTOR 4P			
		< COIL >			
* L701	1-420-872-00	COIL, AIR CORE			
		< IC >			
IC701	8-749-921-85	IC STK-3122-3			
		< TRANSISTOR >			
Q255	8-729-900-63	TRANSISTOR DTA124ES			
Q256	8-729-900-63	TRANSISTOR DTA124ES			
Q720	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q721	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q770	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q771	8-729-141-30	TRANSISTOR 2SC3623A-LK			
		< RESISTOR >			
R259	1-249-437-11	CARBON	47K	5%	1/4W
R260	1-249-437-11	CARBON	47K	5%	1/4W
R261	1-249-417-11	CARBON	1K	5%	1/4W
R262	1-249-429-11	CARBON	10K	5%	1/4W
R263	1-249-429-11	CARBON	10K	5%	1/4W
R270	1-249-433-11	CARBON	22K	5%	1/4W
R271	1-249-433-11	CARBON	22K	5%	1/4W
R701	1-249-417-11	CARBON	1K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-413-11	CARBON	470	5%	1/4W
R705	1-249-441-11	CARBON	100K	5%	1/4W
R706	1-247-828-11	CARBON	750	5%	1/4W
R741	1-249-405-11	CARBON	100	5%	1/4W
R742	1-249-441-11	CARBON	100K	5%	1/4W
R747	1-249-417-11	CARBON	1K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R753	1-249-441-11	CARBON	100K	5%	1/4W
R754	1-249-413-11	CARBON	470	5%	1/4W
R755	1-249-441-11	CARBON	100K	5%	1/4W
R756	1-247-828-11	CARBON	750	5%	1/4W
R791	1-249-405-11	CARBON	100	5%	1/4W
R792	1-249-441-11	CARBON	100K	5%	1/4W
R797	1-249-417-11	CARBON	1K	5%	1/4W
**********					
*	1-644-266-11	BALANCE VOL BOARD			
		**********			
		< VARIABLE RESISTOR >			
RV401	1-241-963-11	RES, VAR, CARBON 100K/100K (BALANCE)			
**********					

CONNECT (A) CONNECT (B) CONNECT (C) DISPLAY

Ref. No.	Part No.	Description			Remark
*	1-644-257-11	CONNECT (A) BOARD			
		**********			
		< CONNECTOR >			
* CNS751	1-691-176-11	CONNECTOR (BOARD TO BOARD) 6P			
* CNS761	1-691-176-11	CONNECTOR (BOARD TO BOARD) 6P			
**********					
*	1-644-268-11	CONNECT (B) BOARD			
		**********			
		< CONNECTOR >			
CNP1	1-691-170-11	PIN, CONNECTOR 13P			
		< CONNECTOR >			
* CNS154	1-691-183-11	CONNECTOR (BOARD TO BOARD) 13P			
**********					
*	A-4356-309-A	CONNECT(C) BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C730	1-124-927-11	ELECT	4.7uF	20%	100V
C731	1-124-927-11	ELECT	4.7uF	20%	100V
C732	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C733	1-124-927-11	ELECT	4.7uF	20%	100V
C734	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C735	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C780	1-124-927-11	ELECT	4.7uF	20%	100V
C781	1-124-927-11	ELECT	4.7uF	20%	100V
C782	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C783	1-124-927-11	ELECT	4.7uF	20%	100V
C784	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C785	1-164-336-11	CERAMIC CHIP	0.33uF		25V
		< CONNECTOR >			
CNP301	1-573-146-11	PLUG, CONNECTOR 8P			
CNP450	1-691-164-11	PIN, CONNECTOR 7P			
		< IC >			
IC710	8-759-636-55	IC M5218AFP			
		< TRANSISTOR >			
Q258	8-729-201-56	TRANSISTOR	2SK246-GR2		
Q259	8-729-201-56	TRANSISTOR	2SK246-GR2		
Q722	8-729-802-80	TRANSISTOR	2SC3661		
Q772	8-729-802-80	TRANSISTOR	2SC3661		

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R256	1-216-097-00	METAL CHIP	100K	5%	1/10W
R257	1-216-097-00	METAL CHIP	100K	5%	1/10W
R738	1-216-097-00	METAL CHIP	100K	5%	1/10W
R739	1-216-113-00	METAL CHIP	470K	5%	1/10W
R740	1-216-049-00	METAL CHIP	1K	5%	1/10W
R742	1-216-073-00	METAL CHIP	10K	5%	1/10W
R743	1-216-101-00	METAL CHIP	150K	5%	1/10W
R744	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R745	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R747	1-216-049-00	METAL CHIP	1K	5%	1/10W
R781	1-216-039-00	METAL CHIP	390	5%	1/10W
R782	1-216-017-00	METAL CHIP	47	5%	1/10W
R788	1-216-097-00	METAL CHIP	100K	5%	1/10W
R789	1-216-113-00	METAL CHIP	470K	5%	1/10W
R790	1-216-049-00	METAL CHIP	1K	5%	1/10W
R792	1-216-073-00	METAL CHIP	10K	5%	1/10W
R793	1-216-101-00	METAL CHIP	150K	5%	1/10W
R794	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R795	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R797	1-216-049-00	METAL CHIP	1K	5%	1/10W
**********					
*	A-4347-977-A	DISPLAY BOARD, COMPLETE (D1090)			
*	A-4347-945-A	DISPLAY BOARD, COMPLETE (D2090)			
		**********			
*	4-952-472-01	HOLDER (S), FL TUBE			
*	4-952-473-01	HOLDER (S), LED			
		< CAPACITOR >			
C201	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C202	1-124-638-11	ELECT	22uF	20%	10V
C203	1-136-165-00	FILM	0.1uF	5%	50V
C204	1-124-916-11	ELECT	22uF	20%	63V
C207	1-136-165-00	FILM	0.1uF	5%	50V
C208	1-136-165-00	FILM	0.1uF	5%	50V
C211	1-126-233-11	ELECT	22uF	20%	50V
C212	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C213	1-124-910-11	ELECT	47uF	20%	50V
C216	1-136-165-00	FILM	0.1uF	5%	50V
C217	1-164-097-11	CERAMIC	0.022uF		50V
C218	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C219	1-164-097-11	CERAMIC	0.022uF		50V
		< FILTER >			
CF201	1-567-849-11	OSCILLATOR, CERAMIC 20MHz			

DISPLAY

Ref. No.	Part No.	Description	Remark
		< JACK >	
* CNJ202	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P	
		< CONNECTOR >	
CNS201	1-695-382-11	PIN, CONNECTOR (PC BOARD) 21P (D1090)	
* CNS201	1-568-864-11	SOCKET, CONNECTOR 21P (D2090)	
		< DIODE >	
D202	8-719-313-72	LED SEL3810A-CD (DBFB)	
D203	8-719-313-72	LED SEL3810A-CD (SURR)	
D204	8-719-313-72	LED SEL3810A-CD (EQ)	
D205	8-719-313-72	LED SEL3810A-CD (INDEX)	
D209	8-719-016-74	DIODE 1SS352	
D211	8-719-313-45	LED SEL2810A (MONITOR)	
D212	8-719-313-72	LED SEL3810A-CD (MUTING)	
D217	8-719-016-74	DIODE 1SS352	
D218	8-719-016-74	DIODE 1SS352	
D220	8-719-016-74	DIODE 1SS352 (D2090)	
D223	8-719-302-68	LED SEL2910W-D (VIDEO1)	
D224	8-719-302-68	LED SEL2910W-D (VIDEO3)	
D225	8-719-302-68	LED SEL2910W-D (TAPE1)	
D226	8-719-302-68	LED SEL2910W-D (DAT)	
D227	8-719-302-68	LED SEL2910W-D (CD)	
D228	8-719-302-68	LED SEL2910W-D (TUNER)	
D229	8-719-302-68	LED SEL2910W-D (TUNER)	
D230	8-719-302-68	LED SEL2910W-D (PHONO)	
D231	8-719-302-68	LED SEL2910W-D (1)	
D232	8-719-302-68	LED SEL2910W-D (2)	
D233	8-719-302-68	LED SEL2910W-D (3)	
D234	8-719-302-68	LED SEL2910W-D (4)	
D235	8-719-302-68	LED SEL2910W-D (5)	
D236	8-719-302-68	LED SEL2910W-D (6)	
D237	8-719-302-68	LED SEL2910W-D (7)	
D238	8-719-302-68	LED SEL2910W-D (8)	
D239	8-719-302-68	LED SEL2910W-D (9)	
D240	8-719-302-68	LED SEL2910W-D (0)	
D241	8-719-302-68	LED SEL2910W-D (DOLBY)	
D242	8-719-302-68	LED SEL2910W-D (THEATER)	
D243	8-719-302-68	LED SEL2910W-D (LIVE)	
D244	8-719-302-68	LED SEL2910W-D (HALL)	
D245	8-719-302-68	LED SEL2910W-D (DISCO)	
D246	8-719-302-68	LED SEL2910W-D (JAZZ)	
D247	8-719-302-68	LED SEL2910W-D (OPERA)	
D248	8-719-302-68	LED SEL2910W-D (CHURCH)	
D249	8-719-302-68	LED SEL2910W-D (STADIUM)	
D250	8-719-302-68	LED SEL2910W-D (ACOUSTIC)	
D251	8-719-016-74	DIODE 1SS352	
D252	8-719-016-74	DIODE 1SS352	

Ref. No.	Part No.	Description	Remark
		< FILTER >	
FL201	1-519-724-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC201	8-759-075-35	IC TD62C950RF	
IC202	8-759-075-35	IC TD62C950RF	
IC203	8-759-087-62	IC HD6433258A	
IC204	8-749-920-83	IC GP1U52XB	
		< COIL >	
L201	1-410-377-31	INDUCTOR CHIP 4.7uH	
		< TRANSISTOR >	
Q201	8-729-207-68	TRANSISTOR RN2402	
Q202	8-729-805-41	TRANSISTOR 2SC3398	
Q203	8-729-805-43	TRANSISTOR 2SC3396	
Q213	8-729-805-43	TRANSISTOR 2SC3396	
Q223	8-729-805-43	TRANSISTOR 2SC3396	
		< RESISTOR >	
R201	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R202	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R203	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R204	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R205	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
⚠R206	1-249-381-11	CARBON 1 5% 1/4W F	
⚠R207	1-249-381-11	CARBON 1 5% 1/4W F	
R208	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R209	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R210	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R211	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R212	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R213	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R214	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R215	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R216	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R217	1-216-001-00	METAL CHIP 10 5% 1/10W	
R218	1-216-037-00	METAL CHIP 330 5% 1/10W	
R219	1-216-037-00	METAL CHIP 330 5% 1/10W	
R220	1-216-037-00	METAL CHIP 330 5% 1/10W	
R221	1-216-037-00	METAL CHIP 330 5% 1/10W	
R222	1-216-037-00	METAL CHIP 330 5% 1/10W	
R223	1-216-037-00	METAL CHIP 330 5% 1/10W	
R224	1-216-037-00	METAL CHIP 330 5% 1/10W	
R225	1-216-037-00	METAL CHIP 330 5% 1/10W	
R226	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R227	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R228	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	

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DISPLAY FRONT VIDEO MAIN

Ref. No.	Part No.	Description			Remark
R229	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R230	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R231	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R232	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R233	1-216-037-00	METAL CHIP	330	5% 1/10W	
R234	1-216-037-00	METAL CHIP	330	5% 1/10W	
R237	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R238	1-216-037-00	METAL CHIP	330	5% 1/10W	
R239	1-216-037-00	METAL CHIP	330	5% 1/10W	
R240	1-216-025-00	METAL CHIP	100	5% 1/10W	
⚠R241	1-249-421-11	CARBON	2.2K	5% 1/4W F	
⚠R242	1-249-421-11	CARBON	2.2K	5% 1/4W F	
⚠R243	1-249-421-11	CARBON	2.2K	5% 1/4W F	
R245	1-216-001-00	METAL CHIP	10	5% 1/10W	
⚠R246	1-249-405-11	CARBON	100	5% 1/4W F	
⚠R247	1-249-405-11	CARBON	100	5% 1/4W F	
R248	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R249	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R250	1-216-033-00	METAL CHIP	220	5% 1/10W	
R251	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R252	1-216-049-00	METAL CHIP	1K	5% 1/10W	
R265	1-216-001-00	METAL CHIP	10	5% 1/10W	
		< SWITCH >			
S201	1-554-303-21	SWITCH, TACTILE (DISPLAY:GRAPHIC)			
S202	1-554-303-21	SWITCH, TACTILE (DISPLAY:INDEX)			
S203	1-554-303-21	SWITCH, TACTILE (INDEX SELECT/TUNING:-)			
S204	1-554-303-21	SWITCH, TACTILE (INDEX SELECT/TUNING:+)			
S205	1-554-303-21	SWITCH, TACTILE (PRESET TUNING:-)			
S206	1-554-303-21	SWITCH, TACTILE (PRESET TUNING:+)			
S207	1-554-303-21	SWITCH, TACTILE (TUNING LEVEL)			
S208	1-554-303-21	SWITCH, TACTILE (MEMORY)			
S209	1-554-303-21	SWITCH, TACTILE (DIRECT TUNING)			
S210	1-554-303-21	SWITCH, TACTILE (FM MODE)			
S211	1-554-303-21	SWITCH, TACTILE (FM/AM)			
S212	1-554-303-21	SWITCH, TACTILE (SOUND FIELD:LINK)			
S213	1-554-303-21	SWITCH, TACTILE (SOUND FIELD:ON/OFF)			
S214	1-554-303-21	SWITCH, TACTILE (SOUND FIELD:USER/PRESET)			
S215	1-554-303-21	SWITCH, TACTILE (PROLOGIC MODE)			
S216	1-554-303-21	SWITCH, TACTILE (FLAT)			
S217	1-554-303-21	SWITCH, TACTILE (SLOPE)			
S218	1-554-303-21	SWITCH, TACTILE (BAND)			
S219	1-554-303-21	SWITCH, TACTILE (ON SCREEN ON/OFF) (D2090)			
S220	1-554-303-21	SWITCH, TACTILE (TITLE:ON/OFF) (D2090)			
S221	1-554-303-21	SWITCH, TACTILE (TITLE:IN/OUT) (D2090)			
S222	1-554-303-21	SWITCH, TACTILE (EDIT:VIDEO)			
S223	1-554-303-21	SWITCH, TACTILE (EDIT:AUDIO)			
S224	1-554-303-21	SWITCH, TACTILE (TAPE2)			
S225	1-554-303-21	SWITCH, TACTILE (SHIFT)			
S226	1-554-303-21	SWITCH, TACTILE (1, DOLBY)			
S227	1-554-303-21	SWITCH, TACTILE (2, THEATER)			
S228	1-554-303-21	SWITCH, TACTILE (3, VIDEO1, LIVE)			
S229	1-554-303-21	SWITCH, TACTILE (CURSOL MODE) (D1090)			
S229	1-554-303-21	SWITCH, TACTILE (CURSOL MODE, TITLE MENU) (D2090)			
S230	1-554-303-21	SWITCH, TACTILE (DBFB)			
S231	1-554-303-21	SWITCH, TACTILE (MUTING -20dB)			
S232	1-554-303-21	SWITCH, TACTILE (4, VIDEO2, HALL)			
S233	1-554-303-21	SWITCH, TACTILE (5, VIDEO3, DISCO)			
S234	1-554-303-21	SWITCH, TACTILE (6, TAPE1, JAZZ)			
S235	1-554-303-21	SWITCH, TACTILE (MODE SELECT)			
S236	1-554-303-21	SWITCH, TACTILE (▽)			
S237	1-554-303-21	SWITCH, TACTILE (△)			
S238	1-554-303-21	SWITCH, TACTILE (7, DATA, OPERA)			
S239	1-554-303-21	SWITCH, TACTILE (8, CD, CHURCH)			
S240	1-554-303-21	SWITCH, TACTILE (9, TUNER, STADIUM)			
S241	1-554-303-21	SWITCH, TACTILE (0, PHONO, ACOUSTIC)			
S242	1-554-303-21	SWITCH, TACTILE (◁)			
S243	1-554-303-21	SWITCH, TACTILE (▷)			
**********					
*	1-644-270-11	FRONT VIDEO BOARD			
		**********			
		< CONNECTOR >			
* CNS153	1-565-482-11	CONNECTOR, BOARD TO BOARD 6P			
		< JACK >			
J131	1-580-174-31	JACK, PIN (3P FRONT) (VIDEO3 INPUT)			
		< RESISTOR >			
R129	1-247-804-11	CARBON	75	5% 1/4W	
**********					
*	A-4356-005-A	MAIN BOARD, COMPLETE (D1090:US, E)			
*	A-4347-974-A	MAIN BOARD, COMPLETE (D1090:CND)			
*	A-4347-940-A	MAIN BOARD, COMPLETE (D2090:US)			
*	A-4347-941-A	MAIN BOARD, COMPLETE (D2090:CND)			
		**********			
	7-682-547-04	SCREW +BVTT 3X6 (S)			
*	4-904-446-01	PLATE, GROUND			
*	4-942-204-01	PLATE, GROUND			
*	4-880-403-11	HEAT SINK			
*	3-309-144-21	HEAT SINK			
*	4-931-903-01	HEAT SINK (DI)			

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Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C251	1-124-925-11	ELECT	2.2uF	20%	100V
C252	1-164-159-11	CERAMIC	0.1uF		50V
C253	1-124-464-11	ELECT	0.22uF	20%	50V
C501	1-162-282-31	CERAMIC	100PF	10%	50V
C502	1-124-927-11	ELECT	4.7uF	20%	100V
C503	1-124-477-11	ELECT	47uF	20%	25V
C504	1-130-480-00	MYLAR	0.0056uF	5%	50V
C505	1-106-347-00	MYLAR	1500PF	5%	200V
C506	1-124-927-11	ELECT	4.7uF	20%	100V
C507	1-126-233-11	ELECT	22uF	20%	50V
C513	1-162-294-11	CERAMIC	0.001uF	10%	50V
C515	1-162-294-31	CERAMIC	0.001uF	10%	50V
C516	1-162-294-31	CERAMIC	0.001uF	10%	50V
C517	1-124-907-11	ELECT	10uF	20%	50V
C518	1-124-907-11	ELECT	10uF	20%	50V
C526	1-164-159-11	CERAMIC	0.1uF		50V
C551	1-162-282-31	CERAMIC	100PF	10%	50V
C552	1-124-927-11	ELECT	4.7uF	20%	100V
C553	1-124-477-11	ELECT	47uF	20%	25V
C554	1-130-480-00	MYLAR	0.0056uF	5%	50V
C555	1-106-347-00	MYLAR	1500PF	5%	200V
C556	1-124-927-11	ELECT	4.7uF	20%	100V
C557	1-126-233-11	ELECT	22uF	20%	50V
C590	1-124-927-11	ELECT	4.7uF	20%	100V
C651	1-124-907-11	ELECT	10uF	20%	50V
C652	1-164-083-11	CERAMIC	680PF	10%	50V
C653	1-124-126-00	ELECT	47uF	20%	10V
C654	1-161-959-00	CERAMIC	22PF	10%	500V
C655	1-124-126-00	ELECT	47uF	20%	10V
C656	1-164-014-11	CERAMIC	5PF	0.25PF	50V
C657	1-161-959-00	CERAMIC	22PF	10%	500V
C658	1-124-126-00	ELECT	47uF	20%	10V
C659	1-136-157-00	FILM	0.022uF	5%	50V (US, E)
C659	1-136-161-00	FILM	0.047uF	5%	50V (CND)
C660	1-136-161-00	FILM	0.047uF	5%	50V (CND)
C661	1-136-165-00	FILM	0.1uF	5%	50V
C663	1-164-077-11	CERAMIC	220PF	10%	50V
C680	1-124-931-11	ELECT	47uF	20%	100V
C707	1-124-477-11	ELECT	47uF	20%	25V
C708	1-102-233-00	CERAMIC	33PF	10%	500V
C709	1-102-233-00	CERAMIC	33PF	10%	500V
C710	1-136-165-00	FILM	0.1uF	5%	50V
C711	1-136-165-00	FILM	0.1uF	5%	50V
C712	1-136-157-00	FILM	0.022uF	5%	50V (US, E)
C712	1-136-161-00	FILM	0.047uF	5%	50V (CND)
C713	1-136-161-00	FILM	0.047uF	5%	50V (CND)
C714	1-124-925-11	ELECT	2.2uF	20%	100V
C715	1-124-472-11	ELECT	470uF	20%	10V
C757	1-124-477-11	ELECT	47uF	20%	25V
C758	1-102-233-00	CERAMIC	33PF	10%	500V
C759	1-102-233-00	CERAMIC	33PF	10%	500V
C760	1-136-165-00	FILM	0.1uF	5%	50V
C761	1-136-165-00	FILM	0.1uF	5%	50V
C762	1-136-157-00	FILM	0.022uF	5%	50V (US, E)
C762	1-136-161-00	FILM	0.047uF	5%	50V (CND)
C763	1-136-161-00	FILM	0.047uF	5%	50V (CND)
C962	1-124-907-11	ELECT	10uF	20%	50V
C963	1-126-955-11	ELECT	4700uF	20%	35V
C964	1-124-910-11	ELECT	47uF	20%	50V
C965	1-126-955-11	ELECT	4700uF	20%	35V
C966	1-124-477-11	ELECT	47uF	20%	25V
C967	1-124-477-11	ELECT	47uF	20%	25V
C968	1-124-898-11	ELECT	4700uF	20%	16V(D1090)
C968	1-126-017-11	ELECT	6800uF	20%	16V(D2090)
C969	1-124-477-11	ELECT	47uF	20%	25V
C971	1-124-667-11	ELECT	10uF	20%	100V
C980	1-106-391-12	MYLAR	0.1uF	5%	200V
C981	1-106-391-12	MYLAR	0.1uF	5%	200V
C982	1-125-752-11	ELECT	12000uF	20%	71V
C983	1-125-752-11	ELECT	12000uF	20%	71V
C991	1-164-096-11	CERAMIC	0.01uF		50V
C992	1-164-096-11	CERAMIC	0.01uF		50V
C993	1-164-096-11	CERAMIC	0.01uF		50V
C994	1-164-096-11	CERAMIC	0.01uF		50V
		< FILTER >			
CF251	1-567-849-11	OSCILLATOR, CERAMIC 20MHz			
		< CONNECTOR >			
* CNP153	1-560-330-00	CONNECTOR PIN (L)			
CNP154	1-691-170-11	PIN, CONNECTOR 13P			
* CNP251	1-691-767-11	PLUG, CONNECTOR 5P			
* CNP253	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP551	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP554	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP651	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP652	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P			
* CNP653	1-564-508-11	PLUG, CONNECTOR 5P			
* CNP654	1-564-507-11	PLUG, CONNECTOR 4P			
CNP751	1-691-163-11	PIN, CONNECTOR 6P			
CNP752	1-691-162-11	PIN, CONNECTOR 5P			
CNP753	1-691-165-11	PIN, CONNECTOR 8P			
* CNP754	1-564-242-00	PIN, CONNECTOR 5P			
* CNP951	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P			
* CNP953	1-564-242-00	PIN, CONNECTOR 5P			

MAIN

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
* CNS151	1-568-826-11	SOCKET, CONNECTOR 7P (D2090)	
CNS252	1-568-838-11	PIN, CONNECTOR (PC BOARD) 21P	
* CNS253	1-568-824-11	SOCKET, CONNECTOR 5P	
CNS351	1-695-218-11	SOCKET, CONNECTOR 33P	
		< DIODE >	
D252	8-719-987-63	DIODE 1N4148M	
D253	8-719-987-63	DIODE 1N4148M (D2090)	
D501	8-719-987-63	DIODE 1N4148M	
D610	8-719-987-63	DIODE 1N4148M	
D611	8-719-987-63	DIODE 1N4148M	
D623	8-719-987-63	DIODE 1N4148M	
D651	8-719-933-35	DIODE HZS6A3L	
D652	8-719-987-63	DIODE 1N4148M	
D654	8-719-987-63	DIODE 1N4148M	
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-985-35	DIODE HZS2ALL	
D703	8-719-985-35	DIODE HZS2ALL	
D704	8-719-987-63	DIODE 1N4148M	
D705	8-719-987-63	DIODE 1N4148M	
D715	8-719-987-63	DIODE 1N4148M	
D716	8-719-987-63	DIODE 1N4148M	
D718	8-719-987-63	DIODE 1N4148M	
D719	8-719-987-63	DIODE 1N4148M	
D720	8-719-987-63	DIODE 1N4148M	
D723	8-719-987-63	DIODE 1N4148M	
D730	8-719-987-63	DIODE 1N4148M	
D731	8-719-987-63	DIODE 1N4148M	
D751	8-719-987-63	DIODE 1N4148M	
D752	8-719-985-35	DIODE HZS2ALL	
D753	8-719-985-35	DIODE HZS2ALL	
D754	8-719-987-63	DIODE 1N4148M	
D765	8-719-987-63	DIODE 1N4148M	
D766	8-719-987-63	DIODE 1N4148M	
D963	8-719-002-76	DIODE UZL-36H	
D970	8-719-312-09	DIODE RBA-402	
D971	8-719-312-09	DIODE RBA-402	
D973	8-719-987-63	DIODE 1N4148M	
D980	8-719-302-38	DIODE RBV-602-01	
		< IC >	
IC150	8-759-095-18	IC HD643325A39F	
IC231	8-759-820-62	IC LB1639	
IC501	8-759-111-44	IC uPC4570C-1	
IC510	8-759-805-14	IC LC7822	
IC511	8-759-805-14	IC LC7822	
IC514	8-759-801-01	IC LC4966	
IC951	8-759-604-40	IC M5F78M15L	
IC952	8-759-604-46	IC M5F79M15L	
IC953	8-759-604-35	IC M5F78M05L	
		< JACK >	
J501	1-691-260-11	JACK, PIN 6P	
J502	1-691-260-11	JACK, PIN 6P	
J503	1-691-260-11	JACK, PIN 6P	
J504	1-573-520-11	JACK, PIN 4P	
		< COIL >	
* L602	1-420-872-00	COIL, AIR CORE	
* L751	1-420-872-00	COIL, AIR CORE	
		< TRANSISTOR >	
Q250	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q257	8-729-900-63	TRANSISTOR DTA124ES	
Q501	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q502	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q503	8-729-900-61	TRANSISTOR DTA114ES	
Q507	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q508	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q509	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q510	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q511	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q512	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q520	8-729-900-80	TRANSISTOR DTC114ES	
Q521	8-729-900-61	TRANSISTOR DTA114ES	
Q522	8-729-900-80	TRANSISTOR DTC114ES	
Q523	8-729-900-61	TRANSISTOR DTA114ES	
Q552	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q644	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q651	8-729-620-18	TRANSISTOR 2SA979-FG	
Q652	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q653	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q655	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q656	8-729-141-06	TRANSISTOR 2SA1142-QPE	
Q657	8-729-209-15	TRANSISTOR 2SD2012	
Q658	8-729-141-05	TRANSISTOR 2SC2682-QPE	
Q662	8-729-141-46	TRANSISTOR 2SC4431-LK	
Q663	8-729-141-37	TRANSISTOR 2SA1684-LK	
Q664	8-729-321-24	TRANSISTOR 2SA1672-OY	
Q665	8-729-321-21	TRANSISTOR 2SC4387-OY	
Q667	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q702	8-729-209-15	TRANSISTOR 2SD2012	
Q704	8-729-141-46	TRANSISTOR 2SC4431-LK	
Q705	8-729-320-96	TRANSISTOR 2SC2921-OPY	
Q708	8-729-141-37	TRANSISTOR 2SA1684-LK	
Q709	8-729-320-73	TRANSISTOR 2SA1215-OY	

Ref. No.	Part No.	Description	Remark
Q711	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q712	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q713	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q714	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q715	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q716	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q752	8-729-209-15	TRANSISTOR 2SD2012	
Q754	8-729-141-46	TRANSISTOR 2SC4431-LK	
Q755	8-729-320-96	TRANSISTOR 2SC2921-OPY	
Q758	8-729-141-37	TRANSISTOR 2SA1684-LK	
Q759	8-729-320-73	TRANSISTOR 2SA1215-OY	
Q767	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q768	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q961	8-729-209-15	TRANSISTOR 2SD2012	
		< RESISTOR >	
R141	1-249-417-11	CARBON 1K 5% 1/4W	
R191	1-249-417-11	CARBON 1K 5% 1/4W	
R251	1-249-422-11	CARBON 2.7K 5% 1/4W	
R252	1-249-441-11	CARBON 100K 5% 1/4W	
R253	1-249-425-11	CARBON 4.7K 5% 1/4W	
R255	1-247-903-00	CARBON 1M 5% 1/4W	
R258	1-249-437-11	CARBON 47K 5% 1/4W	
R266	1-249-429-11	CARBON 10K 5% 1/4W	
R267	1-249-429-11	CARBON 10K 5% 1/4W	
R268	1-249-429-11	CARBON 10K 5% 1/4W	
R269	1-249-413-11	CARBON 470 5% 1/4W	
R272	1-249-429-11	CARBON 10K 5% 1/4W	(D2090)
R273	1-249-437-11	CARBON 47K 5% 1/4W	
R274	1-249-429-11	CARBON 10K 5% 1/4W	
R275	1-249-429-11	CARBON 10K 5% 1/4W	(D2090)
R501	1-249-411-11	CARBON 330 5% 1/4W	
R502	1-249-441-11	CARBON 100K 5% 1/4W	
R503	1-249-441-11	CARBON 100K 5% 1/4W	
R504	1-249-417-11	CARBON 1K 5% 1/4W	
R505	1-247-897-11	CARBON 560K 5% 1/4W	
R506	1-249-437-11	CARBON 47K 5% 1/4W	
R507	1-247-903-00	CARBON 1M 5% 1/4W	
R508	1-249-409-11	CARBON 220 5% 1/4W	
R509	1-249-409-11	CARBON 220 5% 1/4W	
R510	1-249-438-11	CARBON 56K 5% 1/4W	
R511	1-249-417-11	CARBON 1K 5% 1/4W	
R513	1-249-417-11	CARBON 1K 5% 1/4W	
R514	1-249-417-11	CARBON 1K 5% 1/4W	
R515	1-249-417-11	CARBON 1K 5% 1/4W	
R517	1-249-417-11	CARBON 1K 5% 1/4W	
R518	1-249-417-11	CARBON 1K 5% 1/4W	
R520	1-249-441-11	CARBON 100K 5% 1/4W	
R521	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R522	1-249-429-11	CARBON 10K 5% 1/4W	
R523	1-249-426-11	CARBON 5.6K 5% 1/4W	
R524	1-249-441-11	CARBON 100K 5% 1/4W	
⚠R526	1-249-407-11	CARBON 150 5% 1/4W	F
R531	1-249-425-11	CARBON 4.7K 5% 1/4W	
R533	1-249-425-11	CARBON 4.7K 5% 1/4W	
R539	1-249-433-11	CARBON 22K 5% 1/4W	
R540	1-249-413-11	CARBON 470 5% 1/4W	
R541	1-249-413-11	CARBON 470 5% 1/4W	
R542	1-249-413-11	CARBON 470 5% 1/4W	
R543	1-249-413-11	CARBON 470 5% 1/4W	
R544	1-249-413-11	CARBON 470 5% 1/4W	
R545	1-249-413-11	CARBON 470 5% 1/4W	
R547	1-249-417-11	CARBON 1K 5% 1/4W	
R548	1-249-417-11	CARBON 1K 5% 1/4W	
R551	1-249-411-11	CARBON 330 5% 1/4W	
R552	1-249-441-11	CARBON 100K 5% 1/4W	
R553	1-249-441-11	CARBON 100K 5% 1/4W	
R554	1-249-417-11	CARBON 1K 5% 1/4W	
R555	1-247-897-11	CARBON 560K 5% 1/4W	
R556	1-249-437-11	CARBON 47K 5% 1/4W	
R557	1-247-903-00	CARBON 1M 5% 1/4W	
R558	1-249-409-11	CARBON 220 5% 1/4W	
R559	1-249-409-11	CARBON 220 5% 1/4W	
R560	1-249-438-11	CARBON 56K 5% 1/4W	
R561	1-249-417-11	CARBON 1K 5% 1/4W	
R563	1-249-417-11	CARBON 1K 5% 1/4W	
R564	1-249-417-11	CARBON 1K 5% 1/4W	
R565	1-249-417-11	CARBON 1K 5% 1/4W	
R567	1-249-417-11	CARBON 1K 5% 1/4W	
R568	1-249-417-11	CARBON 1K 5% 1/4W	
R571	1-249-417-11	CARBON 1K 5% 1/4W	
R574	1-249-441-11	CARBON 100K 5% 1/4W	
R589	1-249-433-11	CARBON 22K 5% 1/4W	
R590	1-249-426-11	CARBON 5.6K 5% 1/4W	
R591	1-249-441-11	CARBON 100K 5% 1/4W	
R592	1-249-433-11	CARBON 22K 5% 1/4W	
R593	1-249-426-11	CARBON 5.6K 5% 1/4W	
R594	1-249-426-11	CARBON 5.6K 5% 1/4W	
R595	1-249-426-11	CARBON 5.6K 5% 1/4W	
R596	1-249-426-11	CARBON 5.6K 5% 1/4W	
R597	1-249-417-11	CARBON 1K 5% 1/4W	
R598	1-249-417-11	CARBON 1K 5% 1/4W	
R599	1-249-426-11	CARBON 5.6K 5% 1/4W	
R635	1-260-072-11	CARBON 4.7 5% 1/2W	
R644	1-249-429-11	CARBON 10K 5% 1/4W	
R650	1-249-434-11	CARBON 27K 5% 1/4W	
R651	1-249-417-11	CARBON 1K 5% 1/4W	
R652	1-249-435-11	CARBON 33K 5% 1/4W	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN MAIN VOL

Ref. No.	Part No.	Description				Remark
⚠R653	1-249-409-11	CARBON	220	5%	1/4W	F
⚠R654	1-249-409-11	CARBON	220	5%	1/4W	F
R655	1-249-415-11	CARBON	680	5%	1/4W	
R656	1-249-421-11	CARBON	2.2K	5%	1/4W	
R657	1-249-425-11	CARBON	4.7K	5%	1/4W	
R658	1-249-435-11	CARBON	33K	5%	1/4W	
R659	1-249-426-11	CARBON	5.6K	5%	1/4W	
R662	1-249-411-11	CARBON	330	5%	1/4W	
R663	1-249-435-11	CARBON	33K	5%	1/4W	
⚠R664	1-249-397-11	CARBON	22	5%	1/4W	F
⚠R665	1-249-405-11	CARBON	100	5%	1/4W	F
R666	1-249-419-11	CARBON	1.5K	5%	1/4W	
R667	1-249-437-11	CARBON	47K	5%	1/4W	
R668	1-249-414-11	CARBON	560	5%	1/4W	
⚠R669	1-249-397-11	CARBON	22	5%	1/4W	F
⚠R670	1-249-405-11	CARBON	100	5%	1/4W	F
R671	1-249-431-11	CARBON	15K	5%	1/4W	
R672	1-260-076-11	CARBON	10	5%	1/2W	
⚠R675	1-249-389-11	CARBON	4.7	5%	1/4W	F
⚠R676	1-249-411-11	CARBON	330	5%	1/4W	F
⚠R677	1-249-389-11	CARBON	4.7	5%	1/4W	F
⚠R678	1-217-611-00	RES, METAL PLATE	0.1		2W	
⚠R679	1-217-611-00	RES, METAL PLATE	0.1		2W	
R680	1-249-397-11	CARBON	22	5%	1/4W	
⚠R681	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R683	1-249-431-11	CARBON	15K	5%	1/4W	
R692	1-249-435-11	CARBON	33K	5%	1/4W	
R702	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R707	1-249-405-11	CARBON	100	5%	1/4W	F
R708	1-249-419-11	CARBON	1.5K	5%	1/4W	
R709	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R710	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R711	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R712	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R713	1-217-611-00	RES, METAL PLATE	0.1		2W	
⚠R714	1-217-611-00	RES, METAL PLATE	0.1		2W	
⚠R715	1-249-393-11	CARBON	10	5%	1/4W	F
R725	1-249-419-11	CARBON	1.5K	5%	1/4W	
R726	1-249-417-11	CARBON	1K	5%	1/4W	
R727	1-249-431-11	CARBON	15K	5%	1/4W	
R728	1-249-431-11	CARBON	15K	5%	1/4W	
R729	1-260-072-11	CARBON	4.7	5%	1/2W	
R730	1-260-076-11	CARBON	10	5%	1/2W	
R731	1-249-429-11	CARBON	10K	5%	1/4W	
R732	1-249-436-11	CARBON	39K	5%	1/4W	
R733	1-249-437-11	CARBON	47K	5%	1/4W	
R734	1-249-417-11	CARBON	1K	5%	1/4W	
R735	1-249-434-11	CARBON	27K	5%	1/4W	
⚠R737	1-249-401-11	CARBON	47	5%	1/4W	F

Ref. No.	Part No.	Description				Remark
R746	1-249-433-11	CARBON	22K	5%	1/4W	
R750	1-249-415-11	CARBON	680	5%	1/4W	
⚠R757	1-249-405-11	CARBON	100	5%	1/4W	F
R758	1-249-419-11	CARBON	1.5K	5%	1/4W	
R759	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R760	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R761	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R762	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R763	1-217-611-00	RES, METAL PLATE	0.1		2W	
⚠R764	1-217-611-00	RES, METAL PLATE	0.1		2W	
⚠R765	1-249-393-11	CARBON	10	5%	1/4W	F
R775	1-249-419-11	CARBON	1.5K	5%	1/4W	
R776	1-249-417-11	CARBON	1K	5%	1/4W	
R777	1-249-431-11	CARBON	15K	5%	1/4W	
R778	1-249-431-11	CARBON	15K	5%	1/4W	
R779	1-260-072-11	CARBON	4.7	5%	1/2W	
R780	1-260-076-11	CARBON	10	5%	1/2W	
⚠R783	1-247-743-11	CARBON	220	5%	1/2W	F
R785	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R787	1-249-401-11	CARBON	47	5%	1/4W	F
R796	1-249-433-11	CARBON	22K	5%	1/4W	
R966	1-249-381-11	CARBON	1	5%	1/4W	
R967	1-249-385-11	CARBON	2.2	5%	1/6W	
⚠R968	1-249-403-11	CARBON	68	5%	1/4W	F
⚠R969	1-249-403-11	CARBON	68	5%	1/4W	F
R970	1-249-426-11	CARBON	5.6K	5%	1/4W	
⚠R971	1-215-910-00	METAL OXIDE	68	5%	3W	F
⚠R972	1-215-910-00	METAL OXIDE	68	5%	3W	F
⚠R973	1-249-397-11	CARBON	22	5%	1/4W	F
R1708	1-249-414-11	CARBON	560	5%	1/4W	
R1709	1-249-431-11	CARBON	15K	5%	1/4W	
R1758	1-249-414-11	CARBON	560	5%	1/4W	
R1759	1-249-431-11	CARBON	15K	5%	1/4W	

< RELAY >

RY501	1-515-614-11	RELAY
RY602	1-515-676-11	RELAY
RY701	1-515-741-21	RELAY

< TEST PIN >

* TP701	1-560-062-00	PIN, CONNECTOR 4P
* TP702	1-560-060-00	PIN, CONNECTOR 2P

****

*	1-644-265-11	MAIN VOL BOARD

****

< CAPACITOR >

C401	1-124-903-11	ELECT	1uF	20%	50V

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MAIN VOL | ON SCREEN

Ref.No.	Part No.	Description			Remark
C402	1-124-903-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CNP451	1-564-510-11	PLUG, CONNECTOR 7P			
		< CONNECTOR >			
* CNS450	1-691-177-11	CONNECTOR (BOARD TO BOARD) 7P			
* CNS453	1-568-824-11	SOCKET, CONNECTOR 5P			
		< RESISTOR >			
R401	1-249-407-11	CARBON	150	5%	1/4W
		< VARIABLE RESISTOR >			
RV402	1-241-563-11	RES, VAR, CARBON 100KX4 (MASTER VOLUME)			
**********					
*	A-4347-944-A	ON SCREEN BOARD, COMPLETE (D2090)			
		**********			
		< CAPACITOR >			
C119	1-124-907-11	ELECT	10uF	20%	50V
C120	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C121	1-124-907-11	ELECT	10uF	20%	50V
C122	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C123	1-126-096-11	ELECT	10uF	20%	35V
C124	1-136-162-00	FILM	0.056uF	5%	50V
C125	1-136-153-00	FILM	0.01uF	5%	50V
C126	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C127	1-124-907-11	ELECT	10uF	20%	50V
C128	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C129	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C130	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C131	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C132	1-124-907-11	ELECT	10uF	20%	50V
C133	1-124-903-11	ELECT	1uF	20%	50V
C134	1-124-903-11	ELECT	1uF	20%	50V
C135	1-124-903-11	ELECT	1uF	20%	50V
C136	1-124-903-11	ELECT	1uF	20%	50V
C137	1-136-161-00	FILM	0.047uF	5%	50V
C138	1-124-903-11	ELECT	1uF	20%	50V
C140	1-126-096-11	ELECT	10uF	20%	35V
C141	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C146	1-163-204-00	CERAMIC CHIP	910PF	5%	50V
C147	1-124-477-11	ELECT	47uF	20%	25V
C148	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C150	1-124-903-11	ELECT	1uF	20%	50V
C151	1-130-475-00	MYLAR	0.0022uF	5%	50V
C152	1-130-475-00	MYLAR	0.0022uF	5%	50V

Ref.No.	Part No.	Description			Remark
C153	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C154	1-124-477-11	ELECT	47uF	20%	25V
C155	1-130-475-00	MYLAR	0.0022uF	5%	50V
C158	1-130-477-00	MYLAR	0.0033uF	5%	50V
C159	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C161	1-130-473-00	MYLAR	0.0015uF	5%	50V
C163	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C164	1-124-477-11	ELECT	47uF	20%	25V
C165	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C167	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C168	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C169	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C170	1-124-477-11	ELECT	47uF	20%	25V
C171	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C172	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C173	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C174	1-124-477-11	ELECT	47uF	20%	25V
C175	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C181	1-136-165-00	FILM	0.1uF	5%	50V
C182	1-124-925-11	ELECT	2.2uF	20%	100V
C183	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C184	1-136-154-00	FILM	0.012uF	5%	50V
C185	1-130-476-00	MYLAR	0.0027uF	5%	50V
C186	1-123-382-00	ELECT	3.3uF	20%	100V
C187	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C188	1-124-477-11	ELECT	47uF	20%	25V
C197	1-124-477-11	ELECT	47uF	20%	25V
C198	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C199	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< JACK >			
* CNJ105	1-568-824-11	SOCKET, CONNECTOR 5P			
* CNJ106	1-568-826-11	SOCKET, CONNECTOR 7P			
		< TRIMMER >			
CT101	1-141-227-00	CAP, TRIMMER	20PF		
		< IC >			
IC105	8-759-931-47	IC	SN74LS628NS		
IC106	8-759-636-55	IC	M5218AFP		
IC107	8-759-250-81	IC	TC5081AP		
IC108	8-759-927-29	IC	SN74HCU04ANS		
IC110	8-759-914-57	IC	BA7230LS		
IC111	8-759-996-03	IC	LVA519S		
IC113	8-759-902-88	IC	SN74LS123NS		
IC114	8-759-907-81	IC	SN74LS221NS		
IC115	8-759-925-85	IC	SN74HC32ANS		
IC117	8-759-922-51	IC	V9938		

ON SCREEN

Ref. No.	Part No.	Description				Remark
IC118	8-759-922-42	IC	MB81464-12			
IC119	8-759-922-42	IC	MB81464-12			
IC120	8-759-926-80	IC	SN74HC573BNS			
IC121	8-759-926-77	IC	SN74HC541ANS			
IC122	8-759-066-22	IC	HN27C101AP12-R001			
IC123	8-759-927-46	IC	SN74HC00ANS			
IC124	8-759-927-46	IC	SN74HC00ANS			
IC125	8-759-048-99	IC	HD6435208F			
IC126	8-759-925-82	IC	SN74HC21ANS			
IC127	8-759-925-76	IC	SN74HC08ANS			
IC128	8-759-824-06	IC	LC3664RML-12			
IC129	8-759-925-78	IC	SN74HC10ANS			
IC130	8-759-925-76	IC	SN74HC08ANS			
IC171	8-759-902-88	IC	SN74LS123NS			
		< COIL >				
L101	1-410-470-11	INDUCTOR	10uH			
L102	1-410-470-11	INDUCTOR	10uH			
L103	1-410-470-11	INDUCTOR	10uH			
L104	1-410-478-11	INDUCTOR	47uH			
		< TRANSISTOR >				
Q112	8-729-216-22	TRANSISTOR	2SA1162-G			
Q113	8-729-216-22	TRANSISTOR	2SA1162-G			
Q114	8-729-216-22	TRANSISTOR	2SA1162-G			
Q115	8-729-113-13	TRANSISTOR	FA1A4M-L33			
Q116	8-729-216-22	TRANSISTOR	2SA1162-G			
Q117	8-729-113-13	TRANSISTOR	FA1A4M-L33			
Q118	8-729-113-13	TRANSISTOR	FA1A4M-L33			
Q119	8-729-113-72	TRANSISTOR	FN1A4M-M33			
Q120	8-729-100-66	TRANSISTOR	2SC1623-L6			
		< RESISTOR >				
R120	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R130	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R131	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R132	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R133	1-216-045-00	METAL CHIP	680	5%	1/10W	
R134	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R135	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R137	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R138	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R140	1-216-039-00	METAL CHIP	390	5%	1/10W	
R144	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R145	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R146	1-216-043-00	METAL CHIP	560	5%	1/10W	
R147	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R150	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R151	1-216-041-00	METAL CHIP	470	5%	1/10W	
R152	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R153	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R154	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R155	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R156	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R157	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R158	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	
R160	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R161	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R162	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R163	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R164	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R165	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R166	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R167	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R168	1-216-041-00	METAL CHIP	470	5%	1/10W	
R169	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R173	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R177	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	
R178	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R179	1-216-064-00	METAL CHIP	4.3K	5%	1/10W	
R180	1-216-041-00	METAL CHIP	470	5%	1/10W	
R181	1-216-041-00	METAL CHIP	470	5%	1/10W	
R182	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R183	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R184	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R185	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R186	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R187	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R188	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R189	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R1001	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R1002	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R1003	1-216-073-00	METAL CHIP	10K	5%	1/10W	
		< VARIABLE RESISTOR >				
RV103	1-241-761-11	RES, ADJ, CERMET 1K				
RV104	1-238-600-11	RES, ADJ, CARBON 10K				
RV105	1-238-597-11	RES, ADJ, CARBON 1K				
RV106	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV107	1-241-761-11	RES, ADJ, CERMET 1K				
		< THERMISTOR(POSITIVE) >				
THP101	1-806-366-11	THERMISTOR (POSITIVE)				

ON SCREEN | POWER SUPPLY

Ref. No.	Part No.	Description			Remark
		< TEST PIN >			
* TP101	1-560-060-00	PIN, CONNECTOR 2P			
* TP102	1-560-060-00	PIN, CONNECTOR 2P			
		< VIBRATOR >			
X102	1-567-505-11	OSCILLATOR, CRYSTAL 3.58MHz			
X103	1-577-121-11	VIBRATOR, CRYSTAL 20MHz			
**********					
*	A-4347-955-A	POWER SUPPLY BOARD, COMPLETE (US, CND)			
*	A-4347-956-A	POWER SUPPLY BOARD, COMPLETE (E)			
		**********			
	1-533-225-11	HOLDER, FUSE			
*	3-309-144-21	HEAT SINK			
	7-682-547-04	SCREW +BVTT 3X6 (S)			
		< BASE POST >			
* BP901	1-535-139-00	BASE POST 19MM (10MM PITCH) 2P			
		< CAPACITOR >			
⚠C901	1-161-744-00	CERAMIC	0.01uF		400V
C951	1-101-004-00	CERAMIC	0.01uF		50V
C952	1-101-004-00	CERAMIC	0.01uF		50V
C953	1-164-073-11	CERAMIC	100PF	10%	50V
C954	1-124-907-11	ELECT	10uF	20%	50V
C955	1-124-477-11	ELECT	47uF	20%	25V
C956	1-124-464-11	ELECT	0.22uF	20%	50V
C957	1-124-902-00	ELECT	0.47uF	20%	50V
C958	1-101-004-00	CERAMIC	0.01uF		50V
C959	1-124-557-11	ELECT	1000uF	20%	25V
C960	1-124-903-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CNP901	1-564-321-00	PIN, CONNECTOR 2P			
* CNP902	1-580-628-11	PIN, CONNECTOR 3P			
CNP903	1-568-106-11	PIN, CONNECTOR 4P (E)			
		< CONNECTOR >			
⚠CNS901	1-540-060-11	OUTLET, AC (POLAR) (AC OUTLET)			
* CNS951	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
		< DIODE >			
D951	8-719-987-63	DIODE 1N4148M			
D952	8-719-987-63	DIODE 1N4148M			
D953	8-719-987-63	DIODE 1N4148M			
D954	8-719-200-02	DIODE 10E2			
D955	8-719-200-02	DIODE 10E2			
D956	8-719-200-02	DIODE 10E2			
D957	8-719-200-02	DIODE 10E2			
D958	8-719-933-41	DIODE HZS6C3L			
D959	8-719-985-53	DIODE HZS4ALL			
D960	8-719-987-63	DIODE 1N4148M			
D961	8-719-933-41	DIODE HZS6C3L			
		< FUSE >			
⚠F901	1-532-350-00	FUSE (4A) (E)			
⚠F901	1-576-108-11	FUSE (4A) (US, CND)			
⚠F902	1-532-350-00	FUSE (4A) (E)			
⚠F902	1-532-749-11	FUSE, GLASS TUBE (8A) (US, CND)			
⚠F903	1-532-350-00	FUSE (4A) (E)			
⚠F904	1-532-350-00	FUSE (4A) (E)			
		< TRANSISTOR >			
Q952	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q953	8-729-209-15	TRANSISTOR 2SD2012			
Q954	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q955	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q956	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q957	8-729-900-63	TRANSISTOR DTA124ES			
Q958	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q959	8-729-900-89	TRANSISTOR DTC144ES			
		< RESISTOR >			
R901	1-202-725-00	SOLID	3.3M	10%	1/2W (US, CND)
⚠R951	1-247-691-11	CARBON	18	5%	1/4W F
R952	1-249-417-11	CARBON	1K	5%	1/4W
R954	1-249-433-11	CARBON	22K	5%	1/4W
R955	1-249-437-11	CARBON	47K	5%	1/4W
R956	1-249-425-11	CARBON	4.7K	5%	1/4W
R957	1-249-429-11	CARBON	10K	5%	1/4W
R958	1-249-417-11	CARBON	1K	5%	1/4W
R959	1-249-429-11	CARBON	10K	5%	1/4W
R960	1-249-429-11	CARBON	10K	5%	1/4W
R962	1-249-426-11	CARBON	5.6K	5%	1/4W
R963	1-249-417-11	CARBON	1K	5%	1/4W
R964	1-249-426-11	CARBON	5.6K	5%	1/4W
R965	1-247-895-00	CARBON	470K	5%	1/4W
		< RELAY >			
⚠RY901	1-515-701-11	RELAY (US, CND)			
⚠RY901	1-515-617-11	RELAY (E)			
		< TRANSFORMER >			
⚠T901	1-448-517-21	TRANSFORMER, POWER (US, CND)			
⚠T901	1-448-523-11	TRANSFORMER, POWER (E)			

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POWER SUPPLY | SP SW | SP TERMINAL | SUB AMP

Ref. No.	Part No.	Description	Remark
		< VOLTAGE SELECTOR >	
⚠VS901	1-571-437-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (E)	
		< VARISTOR >	
⚠VZ901	1-807-180-11	VARISTOR SNR-14A300K	
⚠VZ902	1-807-293-31	VARISTOR SNR-14A221U (E)	
**********			
*	1-644-263-11	SP SW BOARD	
		**********	
		< CONNECTOR >	
* CNP704	1-564-242-00	PIN, CONNECTOR 5P	
* CNP710	1-564-674-11	PIN, CONNECTOR 8P	
		< JACK >	
J703	1-563-347-11	JACK, LARGE TYPE (HEADPHONES)	
		< RESISTOR >	
⚠R736	1-215-869-11	METAL OXIDE 1K 5% 1W F	
⚠R786	1-215-869-11	METAL OXIDE 1K 5% 1W F	
		< SWITCH >	
S701	1-571-973-11	SWITCH, ROTARY (SPEAKERS)	
**********			
*	1-644-261-11	SP TERMINAL BOARD	
		**********	
		< CAPACITOR >	
C641	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C642	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		< CONNECTOR >	
* CNP610	1-564-519-11	PLUG, CONNECTOR 4P	
* CNP611	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P	
* CNP614	1-564-519-11	PLUG, CONNECTOR 4P	
* CNP615	1-564-518-11	PLUG, CONNECTOR 3P	
* CNP715	1-564-674-11	PIN, CONNECTOR 8P	
		< DIODE >	
D612	8-719-987-63	DIODE 1N4148M	
D613	8-719-987-63	DIODE 1N4148M	
D616	8-719-987-63	DIODE 1N4148M (D2090)	
D617	8-719-987-63	DIODE 1N4148M (D2090)	
D618	8-719-987-63	DIODE 1N4148M (D2090)	
D619	8-719-987-63	DIODE 1N4148M (D2090)	

Ref. No.	Part No.	Description	Remark
		< JACK >	
J601	1-695-219-11	JACK, PIN 4P (SURROUND OUT) (D2090)	
		< TRANSISTOR >	
Q641	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q645	8-729-620-05	TRANSISTOR 2SC2603-EF (D2090)	
Q646	8-729-620-05	TRANSISTOR 2SC2603-EF (D2090)	
Q960	8-729-620-05	TRANSISTOR 2SC2603-EF	
		< RESISTOR >	
R610	1-249-441-11	CARBON 100K 5% 1/4W (D2090)	
R611	1-249-430-11	CARBON 12K 5% 1/4W (D2090)	
R613	1-249-430-11	CARBON 12K 5% 1/4W (D2090)	
R614	1-249-430-11	CARBON 12K 5% 1/4W (D2090)	
R615	1-249-441-11	CARBON 100K 5% 1/4W (D2090)	
R617	1-249-421-11	CARBON 2.2K 5% 1/4W (D2090)	
R618	1-249-421-11	CARBON 2.2K 5% 1/4W (D2090)	
R619	1-249-421-11	CARBON 2.2K 5% 1/4W (D2090)	
R620	1-249-421-11	CARBON 2.2K 5% 1/4W (D2090)	
R631	1-249-441-11	CARBON 100K 5% 1/4W (D2090)	
R632	1-249-441-11	CARBON 100K 5% 1/4W (D2090)	
R633	1-249-429-11	CARBON 10K 5% 1/4W (D2090)	
R634	1-249-429-11	CARBON 10K 5% 1/4W (D2090)	
R643	1-249-429-11	CARBON 10K 5% 1/4W	
R961	1-249-429-11	CARBON 10K 5% 1/4W	
		< RELAY >	
RY603	1-515-790-11	RELAY	
RY605	1-515-793-11	RELAY	
RY606	1-515-793-11	RELAY (D2090)	
		< SWITCH >	
S601	1-692-196-11	SWITCH, SLIDE (AMP MODE) (D2090)	
		< TERMINAL >	
TM602	1-536-706-00	TERMINAL BOARD (SP) (FRONT SPEAKERS A, B)	
TM701	1-536-706-00	TERMINAL BOARD (SP) (CENTER SPEAKERS, REAR SPEAKERS)	
**********			
*	A-4347-960-A	SUB AMP BOARD, COMPLETE	
		**********	
		< CAPACITOR >	
C601	1-124-907-11	ELECT 10uF 20% 50V	
C602	1-162-282-31	CERAMIC 100PF 10% 50V	
C603	1-126-233-11	ELECT 22uF 20% 50V	
C604	1-124-667-11	ELECT 10uF 20% 100V	

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SUB AMP SURROUND

Ref. No.	Part No.	Description			Remark
C607	1-136-157-00	FILM	0.022uF	5%	50V
C621	1-124-907-11	ELECT	10uF	20%	50V
C622	1-162-282-31	CERAMIC	100PF	10%	50V
C623	1-126-233-11	ELECT	22uF	20%	50V
C624	1-124-667-11	ELECT	10uF	20%	100V
C627	1-136-157-00	FILM	0.022uF	5%	50V
		< CONNECTOR >			
* CNP631	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP632	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP633	1-564-506-11	PLUG, CONNECTOR 3P			
CNP634	1-691-766-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D620	8-719-987-63	DIODE 1N4148M			
D640	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC601	8-759-085-89	IC LM3875-S			
IC621	8-759-085-89	IC LM3875-S			
		< COIL >			
* L601	1-420-872-00	COIL, AIR CORE			
* L621	1-420-872-00	COIL, AIR CORE			
		< TRANSISTOR >			
Q620	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q640	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
		< RESISTOR >			
R601	1-249-409-11	CARBON	220	5%	1/4W
R602	1-249-441-11	CARBON	100K	5%	1/4W
R603	1-249-415-11	CARBON	680	5%	1/4W
R604	1-249-441-11	CARBON	100K	5%	1/4W
R605	1-249-419-11	CARBON	1.5K	5%	1/4W
R606	1-249-431-11	CARBON	15K	5%	1/4W
R607	1-249-438-11	CARBON	56K	5%	1/4W
⚠R608	1-249-393-11	CARBON	10	5%	1/4W F
⚠R609	1-217-151-00	RES, METAL PLATE	0.22		2W
R611	1-249-389-11	CARBON	4.7	5%	1/4W
R621	1-249-409-11	CARBON	220	5%	1/4W
R622	1-249-441-11	CARBON	100K	5%	1/4W
R623	1-249-420-11	CARBON	1.8K	5%	1/4W
R624	1-249-441-11	CARBON	100K	5%	1/4W
R625	1-249-419-11	CARBON	1.5K	5%	1/4W
R626	1-249-431-11	CARBON	15K	5%	1/4W
R627	1-249-437-11	CARBON	47K	5%	1/4W
⚠R628	1-249-393-11	CARBON	10	5%	1/4W F

Ref. No.	Part No.	Description			Remark
⚠R629	1-217-151-00	RES, METAL PLATE	0.22		2W
R631	1-249-389-11	CARBON	4.7	5%	1/4W
⚠R691	1-249-401-11	CARBON	47	5%	1/4W F
**********					
*	A-4347-979-A	SURROUND BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-124-477-11	ELECT	47uF	20%	25V
C302	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C303	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C304	1-124-477-11	ELECT	47uF	20%	25V
C305	1-136-153-00	FILM	0.01uF	5%	50V
C306	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C307	1-124-907-11	ELECT	10uF	20%	50V
C308	1-124-477-11	ELECT	47uF	20%	25V
C309	1-126-233-11	ELECT	22uF	20%	50V
C310	1-126-233-11	ELECT	22uF	20%	50V
C311	1-136-165-00	FILM	0.1uF	5%	50V
C312	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C313	1-110-340-11	MYLAR	270PF	5%	50V
C314	1-164-073-11	CERAMIC	100PF	10%	50V
C315	1-164-073-11	CERAMIC	100PF	10%	50V
C316	1-124-907-11	ELECT	10uF	20%	50V
C317	1-124-907-11	ELECT	10uF	20%	50V
C318	1-110-341-11	MYLAR	330PF	5%	50V
C319	1-164-073-11	CERAMIC	100PF	10%	50V
C320	1-110-341-11	MYLAR	330PF	5%	50V
C321	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C322	1-126-233-11	ELECT	22uF	20%	50V
C323	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C324	1-124-907-11	ELECT	10uF	20%	50V
C325	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C326	1-124-477-11	ELECT	47uF	20%	25V
C327	1-126-233-11	ELECT	22uF	20%	50V
C328	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C329	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C330	1-124-477-11	ELECT	47uF	20%	25V
C331	1-124-477-11	ELECT	47uF	20%	25V
C332	1-130-473-00	MYLAR	0.0015uF	5%	50V
C333	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C334	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C335	1-130-478-00	MYLAR	0.0039uF	5%	50V
C336	1-126-233-11	ELECT	22uF	20%	50V
C337	1-136-165-00	FILM	0.1uF	5%	50V
C340	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C341	1-164-004-11	CERAMIC CHIP	100PF	5%	50V
C342	1-164-004-11	CERAMIC CHIP	100PF	5%	50V

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SURROUND

Ref. No.	Part No.	Description			Remark
C351	1-126-233-11	ELECT	22uF	20%	50V
C352	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C353	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C354	1-136-153-00	FILM	0.01uF	5%	50V
C355	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C356	1-124-477-11	ELECT	47uF	20%	25V
C357	1-124-907-11	ELECT	10uF	20%	50V
C359	1-126-233-11	ELECT	22uF	20%	50V
C363	1-110-340-11	MYLAR	270PF	5%	50V
C364	1-164-073-11	CERAMIC	100PF	10%	50V
C365	1-164-073-11	CERAMIC	100PF	10%	50V
C366	1-124-907-11	ELECT	10uF	20%	50V
C367	1-124-907-11	ELECT	10uF	20%	50V
C368	1-110-341-11	MYLAR	330PF	5%	50V
C369	1-164-073-11	CERAMIC	100PF	10%	50V
C370	1-110-341-11	MYLAR	330PF	5%	50V
C371	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C372	1-126-233-11	ELECT	22uF	20%	50V
C373	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C374	1-124-907-11	ELECT	10uF	20%	50V
C375	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C376	1-124-477-11	ELECT	47uF	20%	25V
C377	1-126-233-11	ELECT	22uF	20%	50V
C378	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C381	1-124-907-11	ELECT	10uF	20%	50V
C382	1-130-473-00	MYLAR	0.0015uF	5%	50V
C383	1-124-907-11	ELECT	10uF	20%	50V
C384	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C385	1-130-478-00	MYLAR	0.0039uF	5%	50V
C386	1-126-233-11	ELECT	22uF	20%	50V
C392	1-124-903-11	ELECT	1uF	20%	50V
C410	1-124-903-11	ELECT	1uF	20%	50V
C411	1-124-478-11	ELECT	100uF	20%	25V
C412	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C413	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C414	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C415	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C416	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C417	1-126-233-11	ELECT	22uF	20%	50V
C418	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C419	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C421	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C422	1-124-478-11	ELECT	100uF	20%	25V
C423	1-124-478-11	ELECT	100uF	20%	25V
C424	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C425	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C426	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C427	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C428	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C429	1-124-477-11	ELECT	47uF	20%	25V
C430	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C431	1-124-478-11	ELECT	100uF	20%	25V
C432	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C433	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C434	1-126-233-11	ELECT	22uF	20%	50V
C435	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C436	1-126-233-11	ELECT	22uF	20%	50V
C437	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C438	1-126-233-11	ELECT	22uF	20%	50V
C439	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C440	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C441	1-126-233-11	ELECT	22uF	20%	50V
C442	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C443	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C444	1-126-233-11	ELECT	22uF	20%	50V
C445	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C446	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C451	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C452	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C462	1-124-477-11	ELECT	47uF	20%	25V
C463	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C464	1-130-481-00	MYLAR	0.0068uF	5%	50V
C465	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C466	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C468	1-124-907-11	ELECT	10uF	20%	50V
C469	1-124-907-11	ELECT	10uF	20%	50V
C470	1-124-907-11	ELECT	10uF	20%	50V
C471	1-124-907-11	ELECT	10uF	20%	50V
C472	1-124-907-11	ELECT	10uF	20%	50V
C473	1-124-907-11	ELECT	10uF	20%	50V
C474	1-124-907-11	ELECT	10uF	20%	50V
C475	1-124-907-11	ELECT	10uF	20%	50V
C476	1-124-903-11	ELECT	1uF	20%	50V
C477	1-124-903-11	ELECT	1uF	20%	50V
C478	1-124-478-11	ELECT	100uF	20%	25V
C479	1-136-171-00	FILM	0.33uF	5%	50V
C480	1-136-165-00	FILM	0.1uF	5%	50V
C481	1-136-159-00	FILM	0.033uF	5%	50V
C482	1-130-479-00	MYLAR	0.0047uF	5%	50V
C483	1-130-482-00	MYLAR	0.0082uF	5%	50V
C484	1-136-158-00	FILM	0.027uF	5%	50V
C485	1-126-233-11	ELECT	22uF	20%	50V
C486	1-124-478-11	ELECT	100uF	20%	25V
C487	1-124-903-11	ELECT	1uF	20%	50V

< CONNECTOR >

* CNP302 1-564-506-11 PLUG, CONNECTOR 6P

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
* CNS301	1-565-484-11	CONNECTOR, BOARD TO BOARD 8P	
CNS303	1-695-218-11	SOCKET, CONNECTOR 33P	
		< DIODE >	
D402	8-719-918-45	DIODE KV1310	
D404	8-719-210-33	DIODE EC10DS2	
		< IC >	
IC301	8-759-504-36	IC CS5339-KP	
IC302	8-759-636-55	IC M5218AFP	
IC303	8-759-708-05	IC NJM78L05A	
IC304	8-759-700-65	IC NJM79L05A	
IC305	8-759-636-55	IC M5218AFP	
IC306	8-759-636-55	IC M5218AFP	
IC307	8-759-040-59	IC LC7883K	
IC308	8-759-636-55	IC M5218AFP	
IC309	8-759-636-55	IC M5218AFP	
IC355	8-759-636-55	IC M5218AFP	
IC356	8-759-636-55	IC M5218AFP	
IC403	8-759-708-05	IC NJM78L05A	
IC404	8-759-075-34	IC LC83015	
IC405	8-752-342-65	IC CXD2560M	
IC406	8-759-823-77	IC LC324256-10	
IC407	8-759-243-19	IC TC7SU04F	
IC408	8-752-335-52	IC CXD2552Q-2	
IC409	8-759-250-81	IC TC5081AP	
IC410	8-759-926-74	IC SN74HC393ANS	
IC411	8-759-242-70	IC TC7WU04F	
IC412	8-759-708-08	IC NJM78L08A	
IC417	8-759-973-98	IC YM3623B	
IC418	8-759-820-11	IC LC7535	
IC419	8-759-636-55	IC M5218AFP	
IC420	8-759-823-24	IC LA2730	
IC421	8-759-801-01	IC LC4966	
		< COIL >	
L301	1-410-377-31	INDUCTOR CHIP 4.7uH	
L302	1-410-377-31	INDUCTOR CHIP 4.7uH	
L402	1-426-850-11	COIL (RF)	
L404	1-410-377-31	INDUCTOR CHIP 4.7uH	
L405	1-410-377-31	INDUCTOR CHIP 4.7uH	
L406	1-410-377-31	INDUCTOR CHIP 4.7uH	
L407	1-410-377-31	INDUCTOR CHIP 4.7uH	
L408	1-410-377-31	INDUCTOR CHIP 4.7uH	
L409	1-410-377-31	INDUCTOR CHIP 4.7uH	
L410	1-410-377-31	INDUCTOR CHIP 4.7uH	
L413	1-410-377-31	INDUCTOR CHIP 4.7uH	
		< TRANSISTOR >	
Q301	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q302	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q303	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q304	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q305	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q306	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q351	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q352	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q353	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q354	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q355	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q356	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q403	8-729-200-56	TRANSISTOR 2SK241-GR	
Q404	8-729-200-56	TRANSISTOR 2SK241-GR	
Q406	8-729-207-68	TRANSISTOR RN2402	
Q407	8-729-207-68	TRANSISTOR RN2402	
Q408	8-729-207-68	TRANSISTOR RN2402	
Q409	8-729-207-68	TRANSISTOR RN2402	
Q411	8-729-805-45	TRANSISTOR 2SC3395	
Q412	8-729-805-69	TRANSISTOR 2SA1341	
Q413	8-729-805-45	TRANSISTOR 2SC3395	
		< RESISTOR >	
R301	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R302	1-216-017-00	METAL CHIP 47 5% 1/10W	
R303	1-216-025-00	METAL CHIP 100 5% 1/10W	
R304	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R305	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R306	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R308	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R309	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R310	1-216-033-00	METAL CHIP 220 5% 1/10W	
R311	1-216-072-00	METAL CHIP 9.1K 5% 1/10W	
R312	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R313	1-216-072-00	METAL CHIP 9.1K 5% 1/10W	
R314	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R315	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R316	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R317	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R318	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R319	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R320	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R321	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R322	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R323	1-216-062-00	METAL CHIP 3.6K 5% 1/10W	

SURROUND

Ref. No.	Part No.	Description			Remark
R324	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R325	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R326	1-216-097-00	METAL CHIP	100K	5%	1/10W
R327	1-216-073-00	METAL CHIP	10K	5%	1/10W
R328	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R329	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R330	1-216-049-00	METAL CHIP	1K	5%	1/10W
R331	1-216-097-00	METAL CHIP	100K	5%	1/10W
R332	1-216-054-00	METAL GLAZE	1.6K	5%	1/10W
R333	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R334	1-216-105-00	METAL CHIP	220K	5%	1/10W
R335	1-216-049-00	METAL CHIP	1K	5%	1/10W
R336	1-216-049-00	METAL CHIP	1K	5%	1/10W
R337	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R338	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R340	1-216-033-00	METAL CHIP	220	5%	1/10W
R341	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R342	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R343	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R344	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R346	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R347	1-216-049-00	METAL CHIP	1K	5%	1/10W
R348	1-216-049-00	METAL CHIP	1K	5%	1/10W
R349	1-216-049-00	METAL CHIP	1K	5%	1/10W
R350	1-216-049-00	METAL CHIP	1K	5%	1/10W
R351	1-216-001-00	METAL CHIP	10	5%	1/10W
R352	1-216-017-00	METAL CHIP	47	5%	1/10W
R353	1-216-025-00	METAL CHIP	100	5%	1/10W
R354	1-216-073-00	METAL CHIP	10K	5%	1/10W
R355	1-216-097-00	METAL CHIP	100K	5%	1/10W
R356	1-216-097-00	METAL CHIP	100K	5%	1/10W
R357	1-216-041-00	METAL CHIP	470	5%	1/10W
R358	1-216-085-00	METAL CHIP	33K	5%	1/10W
R359	1-216-085-00	METAL CHIP	33K	5%	1/10W
R360	1-216-041-00	METAL CHIP	470	5%	1/10W
R361	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R362	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R363	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R364	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R365	1-216-080-00	METAL CHIP	20K	5%	1/10W
R366	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R367	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R368	1-216-080-00	METAL CHIP	20K	5%	1/10W
R369	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R370	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R371	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R372	1-216-097-00	METAL CHIP	100K	5%	1/10W
R373	1-216-062-00	METAL CHIP	3.6K	5%	1/10W
R374	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R375	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R376	1-216-097-00	METAL CHIP	100K	5%	1/10W
R377	1-216-073-00	METAL CHIP	10K	5%	1/10W
R378	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R379	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R380	1-216-049-00	METAL CHIP	1K	5%	1/10W
R381	1-216-097-00	METAL CHIP	100K	5%	1/10W
R382	1-216-054-00	METAL GLAZE	1.6K	5%	1/10W
R383	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R384	1-216-105-00	METAL CHIP	220K	5%	1/10W
R385	1-216-049-00	METAL CHIP	1K	5%	1/10W
R386	1-216-049-00	METAL CHIP	1K	5%	1/10W
R387	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R388	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R389	1-216-041-00	METAL CHIP	470	5%	1/10W
R390	1-216-041-00	METAL CHIP	470	5%	1/10W
R391	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R392	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R393	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R394	1-216-049-00	METAL CHIP	1K	5%	1/10W
R395	1-216-041-00	METAL CHIP	470	5%	1/10W
R396	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R397	1-216-041-00	METAL CHIP	470	5%	1/10W
R399	1-216-085-00	METAL CHIP	33K	5%	1/10W
R400	1-216-049-00	METAL CHIP	1K	5%	1/10W
R401	1-216-041-00	METAL CHIP	470	5%	1/10W
R409	1-216-049-00	METAL CHIP	1K	5%	1/10W
R410	1-216-049-00	METAL CHIP	1K	5%	1/10W
R411	1-216-097-00	METAL CHIP	100K	5%	1/10W
R412	1-216-097-00	METAL CHIP	100K	5%	1/10W
R413	1-216-049-00	METAL CHIP	1K	5%	1/10W
R414	1-216-049-00	METAL CHIP	1K	5%	1/10W
R416	1-216-049-00	METAL CHIP	1K	5%	1/10W
R417	1-216-089-00	METAL CHIP	47K	5%	1/10W
R418	1-216-049-00	METAL CHIP	1K	5%	1/10W
R419	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R420	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R421	1-216-041-00	METAL CHIP	470	5%	1/10W
R422	1-216-049-00	METAL CHIP	1K	5%	1/10W
R423	1-216-073-00	METAL CHIP	10K	5%	1/10W
R424	1-216-097-00	METAL CHIP	100K	5%	1/10W
R425	1-216-121-00	METAL CHIP	1M	5%	1/10W
R426	1-216-295-00	METAL CHIP	0	5%	1/10W
R427	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R428	1-216-073-00	METAL CHIP	10K	5%	1/10W
R429	1-216-097-00	METAL CHIP	100K	5%	1/10W
R430	1-216-049-00	METAL CHIP	1K	5%	1/10W
R433	1-216-049-00	METAL CHIP	1K	5%	1/10W
R434	1-216-049-00	METAL CHIP	1K	5%	1/10W

SURROUND | SYSTEM POWER SW | TRANS TERMINAL (1) | TRANS TERMINAL (2)

Ref. No.	Part No.	Description			Remark
R435	1-216-025-00	METAL CHIP	100	5%	1/10W
R436	1-216-121-00	METAL CHIP	1M	5%	1/10W
R437	1-216-121-00	METAL CHIP	1M	5%	1/10W
R438	1-216-121-00	METAL CHIP	1M	5%	1/10W
R439	1-216-121-00	METAL CHIP	1M	5%	1/10W
R440	1-216-121-00	METAL CHIP	1M	5%	1/10W
R441	1-216-081-00	METAL CHIP	22K	5%	1/10W
R442	1-216-081-00	METAL CHIP	22K	5%	1/10W
R443	1-216-025-00	METAL CHIP	100	5%	1/10W
R444	1-216-041-00	METAL CHIP	470	5%	1/10W
R445	1-216-041-00	METAL CHIP	470	5%	1/10W
R446	1-216-041-00	METAL CHIP	470	5%	1/10W
R447	1-216-041-00	METAL CHIP	470	5%	1/10W
R448	1-216-025-00	METAL CHIP	100	5%	1/10W
R451	1-216-097-00	METAL CHIP	100K	5%	1/10W
R452	1-216-097-00	METAL CHIP	100K	5%	1/10W
R463	1-216-029-00	METAL CHIP	150	5%	1/10W
R464	1-216-025-00	METAL CHIP	100	5%	1/10W
R465	1-216-121-00	METAL CHIP	1M	5%	1/10W
R467	1-216-080-00	METAL CHIP	20K	5%	1/10W
R468	1-216-073-00	METAL CHIP	10K	5%	1/10W
R469	1-216-107-00	METAL CHIP	270K	5%	1/10W
R470	1-216-073-00	METAL CHIP	10K	5%	1/10W
R471	1-216-077-00	METAL CHIP	15K	5%	1/10W
R472	1-216-083-00	METAL CHIP	27K	5%	1/10W
R473	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R474	1-216-089-00	METAL CHIP	47K	5%	1/10W
R475	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R476	1-216-107-00	METAL CHIP	270K	5%	1/10W
R477	1-216-081-00	METAL CHIP	22K	5%	1/10W
R478	1-216-041-00	METAL CHIP	470	5%	1/10W
R479	1-216-031-00	METAL CHIP	180	5%	1/10W
R480	1-216-075-00	METAL CHIP	12K	5%	1/10W
R481	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R482	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R483	1-216-089-00	METAL CHIP	47K	5%	1/10W
R485	1-216-295-00	METAL CHIP	0	5%	1/10W
R486	1-216-295-00	METAL CHIP	0	5%	1/10W
R488	1-216-295-00	METAL CHIP	0	5%	1/10W
R490	1-216-049-00	METAL CHIP	1K	5%	1/10W
R491	1-216-049-00	METAL CHIP	1K	5%	1/10W
R492	1-216-049-00	METAL CHIP	1K	5%	1/10W
R493	1-216-049-00	METAL CHIP	1K	5%	1/10W
R494	1-216-049-00	METAL CHIP	1K	5%	1/10W
R495	1-216-049-00	METAL CHIP	1K	5%	1/10W
R496	1-216-049-00	METAL CHIP	1K	5%	1/10W
R497	1-216-049-00	METAL CHIP	1K	5%	1/10W
R498	1-216-041-00	METAL CHIP	470	5%	1/10W
R499	1-216-041-00	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R4001	1-216-080-00	METAL CHIP	20K	5%	1/10W
R4002	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R4051	1-216-080-00	METAL CHIP	20K	5%	1/10W
R4052	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
		< VIBRATOR >			
X401	1-577-269-11	VIBRATOR, CRYSTAL 18.432Hz			
X402	1-567-970-11	VIBRATOR, CRYSTAL			
**********					
*	1-644-253-11	SYSTEM POWER SW BOARD			
		**********			
		< CONNECTOR >			
* CNS202	1-565-295-11	PLUG, CONNECTOR 4P			
		< SWITCH >			
S244	1-554-303-21	SWITCH, TACTILE (POWER)			
**********					
*	1-644-271-12	TRANS TERMINAL(1) BOARD			
		**********			
	1-533-225-11	HOLDER, FUSE			
		< CONNECTOR >			
* CNP971	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP972	1-564-214-11	PIN, CONNECTOR (B3PS-VH) 3P			
* CNP973	1-564-321-00	PIN, CONNECTOR 2P (US, CND)			
		< DIODE >			
⚠D150	8-719-014-82	DIODE UZP-6.8B			
		< FUSE >			
⚠F957	1-576-109-11	FUSE (5A)			
⚠F959	1-576-109-11	FUSE (5A)			
**********					
*	1-644-272-11	TRANS TERMINAL(2) BOARD			
		**********			
	1-533-225-11	HOLDER, FUSE			
		< CONNECTOR >			
* CNP970	1-564-242-00	PIN, CONNECTOR 5P			
* CNP974	1-564-506-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D966	8-719-987-63	DIODE 1N4148M			
D967	8-719-987-63	DIODE 1N4148M			

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

TRANS TERMINAL (2) / TRANS TERMINAL (3) / TUNER VIDEO

Ref. No.	Part No.	Description			Remark
		< FUSE >			
⚠F951	1-532-749-11	FUSE, GLASS TUBE (8A)			
⚠F953	1-532-749-11	FUSE, GLASS TUBE (8A)			
⚠F955	1-576-108-11	FUSE (4A)			
		< RELAY >			
RY951	1-515-894-11	RELAY			
**********					
*	1-644-273-11	TRANS TERMINAL(3) BOARD (US, CND)			
		**********			
**********					
*	A-4347-954-A	TUNER VIDEO BOARD, COMPLETE (D1090)			
*	A-4347-938-A	TUNER VIDEO BOARD, COMPLETE (D2090)			
		**********			
		< CAPACITOR >			
C1	1-162-294-31	CERAMIC	0.001uF	10%	50V
C2	1-124-477-11	ELECT	47uF	20%	25V
C3	1-161-379-00	CERAMIC	0.01uF	20%	25V
C4	1-162-294-31	CERAMIC	0.001uF	10%	50V
C5	1-161-379-00	CERAMIC	0.01uF	20%	25V
C6	1-161-379-00	CERAMIC	0.01uF	20%	25V
C11	1-164-097-11	CERAMIC	0.022uF		50V
C21	1-161-021-11	CERAMIC	0.047uF	10%	25V
C22	1-161-379-00	CERAMIC	0.01uF	20%	25V
C23	1-124-477-11	ELECT	47uF	20%	25V
C24	1-123-382-00	ELECT	3.3uF	20%	100V
C25	1-161-379-00	CERAMIC	0.01uF	20%	25V
C26	1-161-329-00	CERAMIC	0.0068uF	30%	16V
C27	1-162-282-31	CERAMIC	100PF	10%	50V
C28	1-124-903-11	ELECT	1uF	20%	50V
C30	1-124-903-11	ELECT	1uF	20%	50V
C31	1-124-902-00	ELECT	0.47uF	20%	50V
C32	1-124-463-00	ELECT	0.1uF	20%	50V
C33	1-130-482-00	MYLAR	0.0082uF	5%	50V
C34	1-123-382-00	ELECT	3.3uF	20%	100V
C35	1-130-482-00	MYLAR	0.0082uF	5%	50V
C36	1-123-382-00	ELECT	3.3uF	20%	100V
C37	1-124-907-11	ELECT	10uF	20%	50V
C39	1-161-379-00	CERAMIC	0.01uF	20%	25V
C40	1-124-463-00	ELECT	0.1uF	20%	50V
C41	1-124-927-11	ELECT	4.7uF	20%	100V
C42	1-161-379-00	CERAMIC	0.01uF	20%	25V
C43	1-126-176-11	ELECT	220uF	20%	10V
C44	1-161-379-00	CERAMIC	0.01uF	20%	25V
C45	1-123-382-00	ELECT	3.3uF	20%	100V
C46	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C48	1-123-382-00	ELECT	3.3uF	20%	100V
C49	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C51	1-124-477-11	ELECT	47uF	20%	25V
C61	1-161-494-00	CERAMIC	0.022uF		25V
C63	1-161-494-00	CERAMIC	0.022uF		25V
C81	1-102-961-00	CERAMIC	27PF	5%	50V
C82	1-102-961-00	CERAMIC	27PF	5%	50V
C83	1-161-379-00	CERAMIC	0.01uF	20%	25V
C84	1-161-379-00	CERAMIC	0.01uF	20%	25V
C85	1-161-379-00	CERAMIC	0.01uF	20%	25V
C86	1-124-477-11	ELECT	47uF	20%	25V
C87	1-161-379-00	CERAMIC	0.01uF	20%	25V
C88	1-161-379-00	CERAMIC	0.01uF	20%	25V
C89	1-124-925-11	ELECT	2.2uF	20%	100V
C90	1-124-463-00	ELECT	0.1uF	20%	50V
C91	1-161-379-00	CERAMIC	0.01uF	20%	25V
C92	1-161-379-00	CERAMIC	0.01uF	20%	25V
C93	1-124-477-11	ELECT	47uF	20%	25V
C101	1-124-903-11	ELECT	1uF	20%	50V
C102	1-124-903-11	ELECT	1uF	20%	50V
C103	1-124-472-11	ELECT	470uF	20%	10V
C104	1-124-472-11	ELECT	470uF	20%	10V
C108	1-164-159-11	CERAMIC	0.1uF		50V
C109	1-124-120-11	ELECT	220uF	20%	25V
C110	1-124-903-11	ELECT	1uF	20%	50V
C111	1-124-903-11	ELECT	1uF	20%	50V (D2090)
C112	1-124-903-11	ELECT	1uF	20%	50V (D2090)
C113	1-124-903-11	ELECT	1uF	20%	50V (D2090)
		< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC			
CF2	1-567-389-11	FILTER, CERAMIC			
CF21	1-577-075-11	OSCILLATOR, CERAMIC			
		< TRANSFORMER >			
CFT21	1-404-853-11	TRANSFORMER, IF(CERAMIC FILTER)			
		< CONNECTOR >			
* CNS1	1-691-183-11	CONNECTOR (BOARD TO BOARD) 13P			
* CNS104	1-568-824-11	SOCKET, CONNECTOR 5P (D2090)			
		< DIODE >			
D101	8-719-987-63	DIODE 1N4148M (D2090)			
D102	8-719-987-63	DIODE 1N4148M (D2090)			
		< FRONTEND >			
FE1	1-693-201-11	FRONT END, FM			
FE61	1-236-461-11	ENCAPSULATED COMPONENT			

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TUNER VIDEO

Ref. No.	Part No.	Description				Remark
		< IC >				
IC10	8-759-821-45	IC	LA1851N			
IC11	8-759-820-91	IC	LC7218			
IC101	8-759-991-77	IC	BA7625			
IC102	8-759-056-91	IC	BA7611AN			
		< JACK >				
J101	1-568-751-51	JACK, PIN (2P SHIELD TYPE)				
J102	1-568-751-51	JACK, PIN (2P SHIELD TYPE)				
		< COIL >				
L1	1-410-521-11	INDUCTOR	100uH			
L21	1-410-171-11	INDUCTOR	1mH			
		< FILTER >				
LPF21	1-235-221-00	FILTER, LOW PASS				
		< TRANSISTOR >				
Q1	8-729-230-XX	TRANSISTOR	2SC2669-OY			
Q2	8-729-230-XX	TRANSISTOR	2SC2669-OY			
Q21	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q22	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q23	8-729-900-61	TRANSISTOR	DTA114ES			
Q24	8-729-900-36	TRANSISTOR	DTC124ES			
Q25	8-729-900-36	TRANSISTOR	DTC124ES			
Q81	8-729-900-61	TRANSISTOR	DTA114ES			
Q82	8-729-900-36	TRANSISTOR	DTC124ES			
Q83	8-729-202-67	TRANSISTOR	2SK246-GR3			
Q84	8-729-230-93	TRANSISTOR	2SC3113-AB			
Q101	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q102	8-729-119-76	TRANSISTOR	2SA1175-HFE			
		< RESISTOR >				
⚠R1	1-249-407-11	CARBON	150	5%	1/4W	F
R3	1-249-411-11	CARBON	330	5%	1/4W	
R4	1-249-411-11	CARBON	330	5%	1/4W	
R5	1-249-411-11	CARBON	330	5%	1/4W	
R6	1-249-432-11	CARBON	18K	5%	1/4W	
R7	1-249-411-11	CARBON	330	5%	1/4W	
R8	1-249-414-11	CARBON	560	5%	1/4W	
R9	1-249-434-11	CARBON	27K	5%	1/4W	
⚠R21	1-249-405-11	CARBON	100	5%	1/4W	F
R22	1-249-428-11	CARBON	8.2K	5%	1/4W	
R23	1-249-417-11	CARBON	1K	5%	1/4W	
R24	1-249-435-11	CARBON	33K	5%	1/4W	
R25	1-249-428-11	CARBON	8.2K	5%	1/4W	
R27	1-249-432-11	CARBON	18K	5%	1/4W	
R28	1-249-423-11	CARBON	3.3K	5%	1/4W	
R29	1-249-429-11	CARBON	10K	5%	1/4W	
R31	1-249-413-11	CARBON	470	5%	1/4W	
R32	1-249-429-11	CARBON	10K	5%	1/4W	
R33	1-249-429-11	CARBON	10K	5%	1/4W	
R35	1-249-437-11	CARBON	47K	5%	1/4W	
R37	1-247-891-00	CARBON	330K	5%	1/4W	
R39	1-249-423-11	CARBON	3.3K	5%	1/4W	
R40	1-249-420-11	CARBON	1.8K	5%	1/4W	
R41	1-249-426-11	CARBON	5.6K	5%	1/4W	
R42	1-247-891-00	CARBON	330K	5%	1/4W	
R44	1-249-423-11	CARBON	3.3K	5%	1/4W	
R45	1-249-420-11	CARBON	1.8K	5%	1/4W	
R46	1-249-426-11	CARBON	5.6K	5%	1/4W	
⚠R47	1-249-409-11	CARBON	220	5%	1/4W	F
R61	1-249-441-11	CARBON	100K	5%	1/4W	
R62	1-249-437-11	CARBON	47K	5%	1/4W	
R63	1-249-397-11	CARBON	22	5%	1/4W	
R64	1-249-417-11	CARBON	1K	5%	1/4W	
R70	1-249-423-11	CARBON	3.3K	5%	1/4W	
R71	1-249-414-11	CARBON	560	5%	1/4W	
R72	1-249-417-11	CARBON	1K	5%	1/4W	
R73	1-249-410-11	CARBON	270	5%	1/4W	
R74	1-249-425-11	CARBON	4.7K	5%	1/4W	
R75	1-249-421-11	CARBON	2.2K	5%	1/4W	
R76	1-249-425-11	CARBON	4.7K	5%	1/4W	
R77	1-249-405-11	CARBON	100	5%	1/4W	
R78	1-249-425-11	CARBON	4.7K	5%	1/4W	
⚠R79	1-249-407-11	CARBON	150	5%	1/4W	F
R81	1-249-417-11	CARBON	1K	5%	1/4W	
R82	1-249-417-11	CARBON	1K	5%	1/4W	
R83	1-249-417-11	CARBON	1K	5%	1/4W	
R84	1-249-417-11	CARBON	1K	5%	1/4W	
R85	1-249-429-11	CARBON	10K	5%	1/4W	
R86	1-249-417-11	CARBON	1K	5%	1/4W	
R87	1-249-429-11	CARBON	10K	5%	1/4W	
R88	1-249-425-11	CARBON	4.7K	5%	1/4W	
R89	1-249-417-11	CARBON	1K	5%	1/4W	
R91	1-249-417-11	CARBON	1K	5%	1/4W	
⚠R92	1-249-401-11	CARBON	47	5%	1/4W	F
R101	1-247-804-11	CARBON	75	5%	1/4W	
R102	1-247-804-11	CARBON	75	5%	1/4W	
R103	1-247-804-11	CARBON	75	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-247-804-11	CARBON	75	5%	1/4W	
R106	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-405-11	CARBON	100	5%	1/4W	
R110	1-249-405-11	CARBON	100	5%	1/4W	
R113	1-249-405-11	CARBON	100	5%	1/4W	
R114	1-249-405-11	CARBON	100	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

TUNER VIDEO

Ref. No.	Part No.	Description			Remark
R115	1-249-433-11	CARBON	22K	5%	1/4W
R116	1-249-433-11	CARBON	22K	5%	1/4W
R117	1-249-433-11	CARBON	22K	5%	1/4W
R120	1-249-425-11	CARBON	4.7K	5%	1/4W (D2090)
R121	1-249-425-11	CARBON	4.7K	5%	1/4W (D2090)
R122	1-249-425-11	CARBON	4.7K	5%	1/4W (D2090)
R123	1-249-425-11	CARBON	4.7K	5%	1/4W (D2090)
		< VARIABLE RESISTOR >			
RV21	1-241-628-11	RES, ADJ, CARBON 2.2K			
RV22	1-241-631-11	RES, ADJ, CARBON 22K			
RV24	1-241-631-11	RES, ADJ, CARBON 22K			
RV25	1-241-631-11	RES, ADJ, CARBON 22K			
		< TRANSFORMER >			
T21	1-404-807-11	TRANSFORMER, DISCRIMINATOR			
		< TERMINAL >			
* TM1	1-562-907-11	CONNECTOR, F-J (ANTENNA:FM)			
TM2	1-536-707-00	TERMINAL BOARD, PUSH 2P (ANTENNA:AM)			
		< TEST PIN >			
* TP1	1-560-060-00	PIN, CONNECTOR 2P			
		< VIBRATOR >			
XT81	1-577-126-11	VIBRATOR, CRYSTAL 7.2MHz			

****

MISCELLANEOUS

****

16	1-690-091-11	WIRE, FLAT TYPE (21 CORE)
⚠58	1-575-975-11	CORD, POWER (US, CND)
⚠58	1-590-074-11	CORD, POWER (E)
62	1-575-777-11	WIRE, FLAT TYPE (5 CORE) (D2090)
63	1-690-421-11	WIRE, FLAT TYPE (7 CORE) (D2090)
64	1-696-073-21	LEAD (WITH CONNECTOR) (2 CORE) (US, CND)
⚠65	1-569-007-11	ADAPTER, CONVERSION 2P (E)
110	1-575-848-11	WIRE, FLAT TYPE (5 CORE)
111	1-696-550-11	WIRE (FLAT TYPE) (33 CORE)
⚠F901	1-532-350-00	FUSE (4A) (E)
⚠F901	1-576-108-11	FUSE (4A) (US, CND)
⚠F902	1-532-350-00	FUSE (4A) (E)
⚠F902	1-532-749-11	FUSE, GLASS TUBE (8A) (US, CND)
⚠F903	1-532-350-00	FUSE (4A) (E)
⚠F904	1-532-350-00	FUSE (4A) (E)
⚠F951	1-532-749-11	FUSE, GLASS TUBE (8A)
⚠F953	1-532-749-11	FUSE, GLASS TUBE (8A)
⚠F955	1-576-108-11	FUSE (4A)
⚠F957	1-576-109-11	FUSE (5A)
⚠F959	1-576-109-11	FUSE (5A)
Q657	8-729-209-15	TRANSISTOR 2SD2012
Q664	8-729-321-24	TRANSISTOR 2SA1672-OY
Q665	8-729-321-21	TRANSISTOR 2SC4387-OY
Q702	8-729-209-15	TRANSISTOR 2SD2012
Q705	8-729-320-96	TRANSISTOR 2SC2921-OPY
Q709	8-729-320-73	TRANSISTOR 2SA1215-OY
Q752	8-729-209-15	TRANSISTOR 2SD2012
Q755	8-729-320-96	TRANSISTOR 2SC2921-OPY
Q759	8-729-320-73	TRANSISTOR 2SA1215-OY
⚠T902	1-697-009-11	TRANSFORMER, POWER (US)
⚠T902	1-697-010-11	TRANSFORMER, POWER (CND)
⚠T902	1-697-011-11	TRANSFORMER, POWER (E)

****

ACCESSORIES & PACKING MATERIALS

****

	1-501-374-11	ANTENNA, LOOP
	1-693-098-11	COMMANDER, STANDARD (RM-P321) (D2090/D1090:E)
	1-693-099-11	COMMANDER, STANDARD (RM-U221) (D1090:US, CND)
	3-755-227-21	MANUAL, INSTRUCTION (ENGLISH)
	3-755-227-31	MANUAL, INSTRUCTION (FRENCH) (CND)
	4-925-079-01	COVER (6), BATTERY
*	4-927-854-01	CUSHION
*	4-954-571-01	INDIVIDUAL CARTON (D2090)
*	4-954-572-01	INDIVIDUAL CARTON (D1090)
	9-910-999-33	INSTRUCTION (US)

****

****

HARDWARE LIST

****

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3
#2	7-682-547-04	SCREW +BVTT 3X6 (S)
#3	7-682-561-04	SCREW +BVTT 4X8 (S)
#4	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3

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English
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Published by Customer Relations and Service Group

9-957-327-11

Sony Corporation
Audio Group

STR-D1090/D2090

SONY

SERVICE MANUAL

US Model
Canadian Model
E Model
STR-D1090
US Model
Canadian Model
STR-D2090

SUPPLEMENT-1

File this Supplement with the Service Manual.

Subject : Block diagram

English
93C0941-1
Printed in Japan
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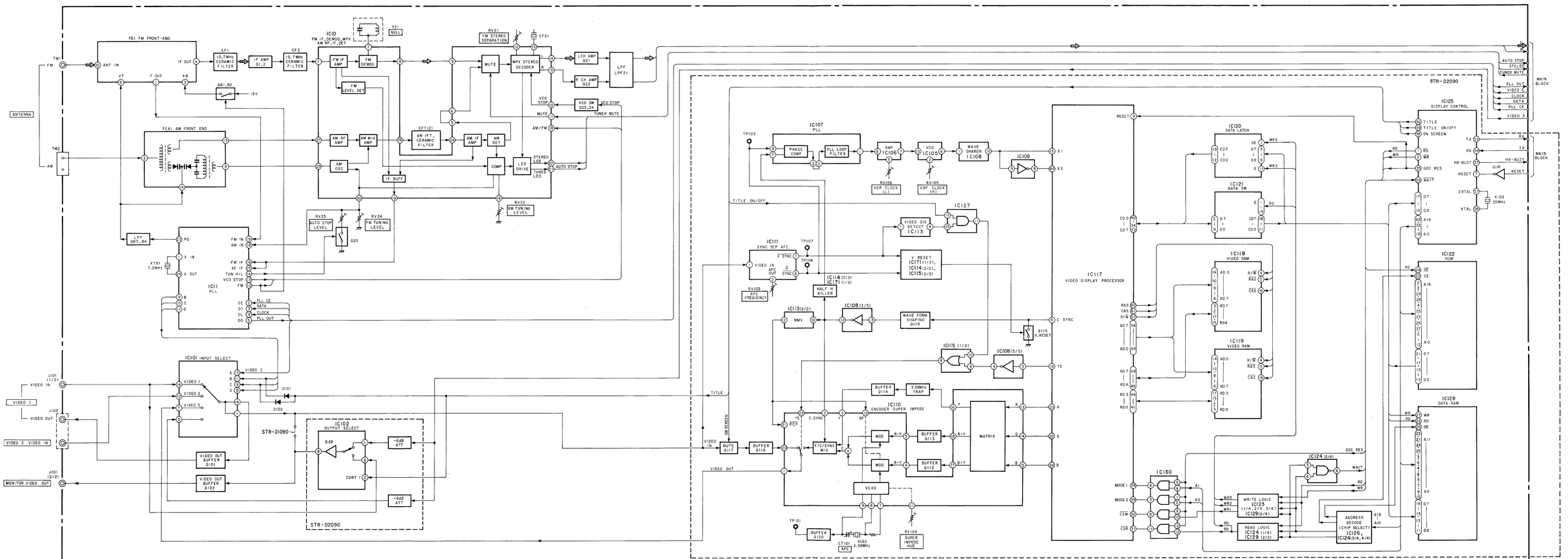
Published by Audio Corporate Planning Group

Sony Corporation
Audio Group

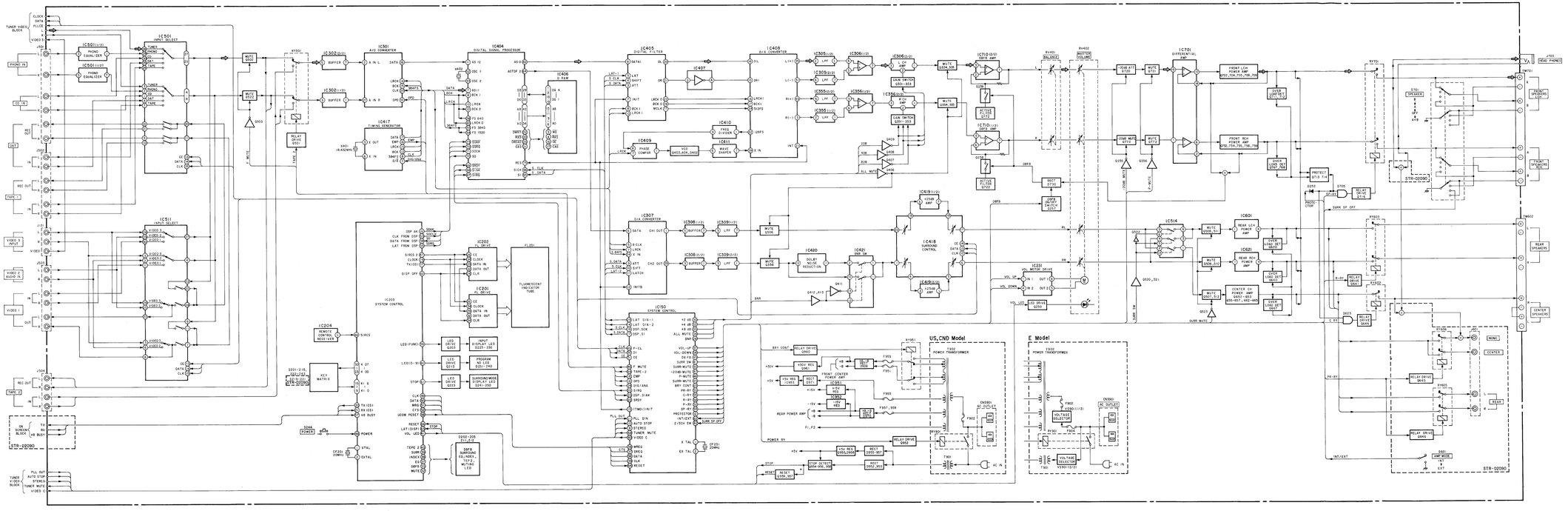
9-957-327-81

• **BLOCK DIAGRAM 1**



STR-D1090/D2090

• BLOCK DIAGRAM 2



STR-D1090/D2090

SONY

SERVICE MANUAL

US Model
Canadian Model
E Model
STR-D1090

US Model
Canadian Model
STR-D2090

SUPPLEMENT-2

File this Supplement with the Service Manual.

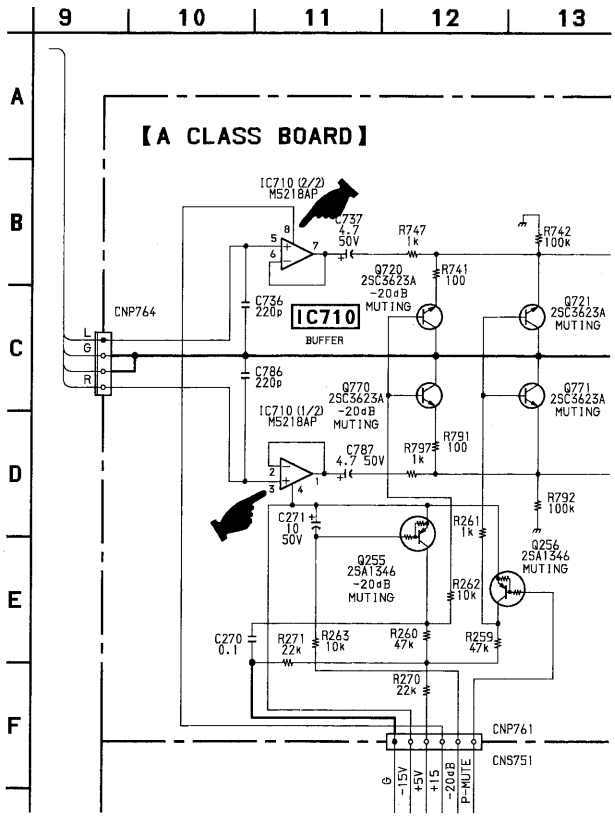
Subject:

1. Addition of IC710 on A CLASS board
2. Change of SURROUND board
3. Correction of semiconductor lead layouts

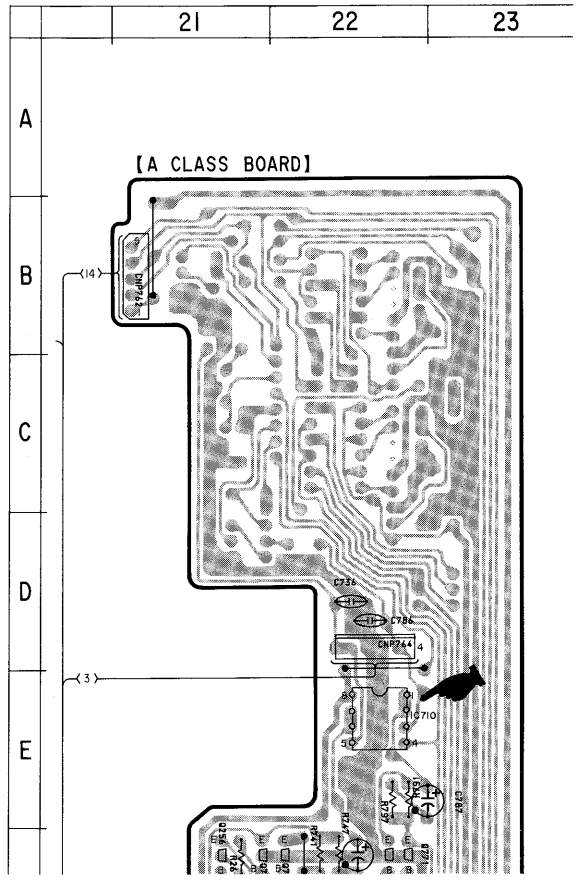
1. Addition of IC710 on A CLASS board.

☛ : Added portion

• 4-5. SCHEMATIC DIAGRAM —MAIN Section— (Service Manual Page 23.)



• 4-6. PRINTED WIRING BOARDS —MAIN Section— (Service Manual Page 28.)



• SECTION 6. ELECTRICAL PARTS LIST

Page	INCORRECT	CORRECT
	Ref. No. Part No. Description	Ref. No. Part No. Description
55	————	IC710 8-759-634-51 IC M5218AP ☛

2. Change of SURROUND board.

• 4-7. SCHEMATIC DIAGRAM —DIGITAL Section— (Service Manual Page 32.)

☛ : Added and changed portion

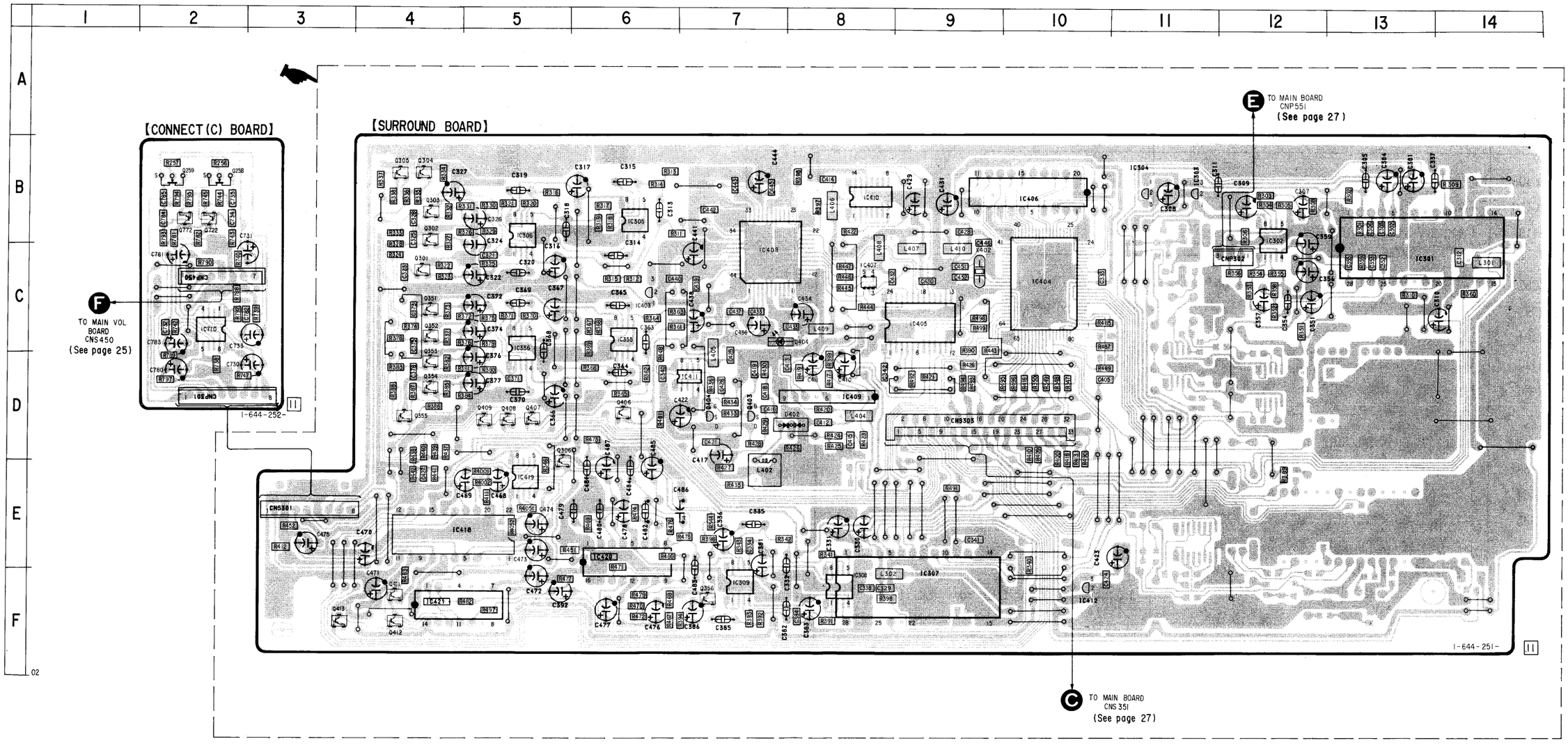
【SURROUND BOARD】

IC301 A/D CONVERTER
IC302 LINE AMP
IC303 5V REG
IC304 -5V REG
IC307 D/A CONVERTER
IC403 5V REG
IC404 DIGITAL SIGNAL PROCESSOR
IC405 DIGITAL FILTER
IC406 D.RAM
IC407 INVERTER
IC408 D/A CONVERTER
IC409 PHASE COMPARATOR
IC410 DIVIDER
IC411 BUFFER
IC412 8V REG
IC420 DOLBY NOISE REDUCTION
IC355 MIX AMP
IC356 L.P.F
IC305 MIX AMP
IC306 L.P.F

CNS305
TO MAIN BOARD CNS351 (SEE PAGE 23)

• 4-8. PRINTED WIRING BOARDS —DIGITAL Section—
(Service Manual Page 35.)

☛ : Added and changed portion


【CONNECT(C) BOARD】
【SURROUND BOARD】
TO MAIN VOL BOARD CNS450 (See page 25)
TO MAIN BOARD CNP551 (See page 27)
TO MAIN BOARD CNS351 (See page 27)
1-644-252-
1-644-251-

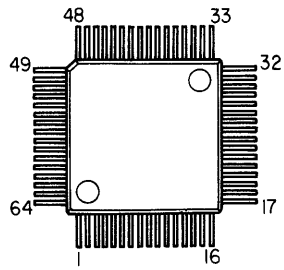
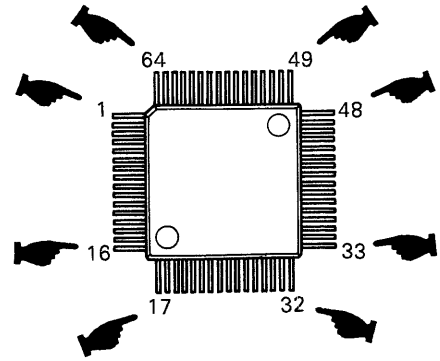
• SECTION 6. ELECTRICAL PARTS LIST (SURROUND board)
(Service Manual Page 67—71.)

Page	Ref. No.	Former Parts Part No. Description	New Parts Part No. Description
67	C338	————	1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V
68	C405	————	1-163-009-11 CERAMIC CHIP 0.001uF 10% 50V
	C462	1-124-477-11 ELECT 47uF 20% 25V	————
	C463	1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V	————
	C464	1-130-481-00 MYLAR 0.0068uF 5% 50V	————
	C465	1-163-235-11 CERAMIC CHIP 22PF 5% 50V	————
	C466	1-163-235-11 CERAMIC CHIP 22PF 5% 50V	————
69	IC408	8-752-335-52 IC CXD2552Q-2	8-752-334-87 IC CXD2552Q
	IC410	8-759-926-74 IC SN74HC393ANS	8-759-013-94 IC MC74HC393F
	L413	1-410-377-31 INDUCTOR CHIP 4.7uH	————
70	R357	1-216-041-00 METAL CHIP 470 5% 1/10W	————
	R398	————	1-216-295-00 METAL CHIP 0 5% 1/10W
	R401	1-216-041-00 METAL CHIP 470 5% 1/10W	————
	R414	1-216-049-00 METAL CHIP 1K 5% 1/10W	————
	R426	1-216-295-00 METAL CHIP 0 5% 1/10W	1-216-049-00 METAL CHIP 1K 5% 1/10W
71	R443	1-216-025-00 METAL CHIP 100 5% 1/10W	1-216-049-00 METAL CHIP 1K 5% 1/10W
	R463	1-216-029-00 METAL CHIP 150 5% 1/10W	————
	R464	1-216-025-00 METAL CHIP 100 5% 1/10W	————
	R465	1-216-121-00 METAL CHIP 1M 5% 1/10W	————
	R478	1-216-041-00 METAL CHIP 470 5% 1/10W	————
	R486	1-216-295-00 METAL CHIP 0 5% 1/10W	————
	R487	————	1-216-295-00 METAL CHIP 0 5% 1/10W
	R488	1-216-295-00 METAL CHIP 0 5% 1/10W	————
	R489	————	1-216-295-00 METAL CHIP 0 5% 1/10W
	X401	1-577-269-11 VIBRATOR, CRYSTAL 18.432MHz	————

3. Correction of semiconductor lead layouts.

• SEMICONDUCTOR LEAD LAYOUTS
(Service Manual Page 13.)

☛ **: Corrected portion**

INCORRECT	CORRECT
HD6435208F  	**HD6435208F** 

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